

# 3-IN-ONE PROFESSIONAL ENGINE STARTER

ChemWatch Material Safety Data Sheet  
Issue Date: Thu 14-Oct-2004

CHEMWATCH 4720-33  
CD 2004/3 Page 1 of 11

---

## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

---

### PRODUCT NAME

3-IN-ONE PROFESSIONAL ENGINE STARTER

### SYNONYMS

### PROPER SHIPPING NAME

AEROSOLS

### PRODUCT USE

Engine starter. Application is by spray atomisation from a hand held aerosol pack

### SUPPLIER

Company: WD-40 Company (Australia P/L)

Address:

41 Rawson Street

Epping

NSW, 2121

AUS

Telephone: (+61 2) 9868 2200

Fax: 02 9869 7512

---

## Section 2 - HAZARDS IDENTIFICATION

---

### STATEMENT OF HAZARDOUS NATURE

**HAZARDOUS SUBSTANCE. DANGEROUS GOODS.**

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

### POISONS SCHEDULE

None

### RISK

Flammable.

Irritating to skin.

HARMFUL-May cause lung damage if swallowed.

Vapours may cause drowsiness and dizziness.

Inhalation may produce health damage\*.

May produce discomfort of the eyes\*.

Repeated exposure potentially causes skin dryness and cracking\*.

\* (limited evidence)

continued...

# 3-IN-ONE PROFESSIONAL ENGINE STARTER

ChemWatch Material Safety Data Sheet  
Issue Date: Thu 14-Oct-2004

CHEMWATCH 4720-33  
CD 2004/3 Page 2 of 11

---

## Section 2 - HAZARDS IDENTIFICATION ...

---

### SAFETY

Keep away from sources of ignition. No smoking.  
Do not breathe gas/fumes/vapour/spray.  
Wear eye/face protection.  
Use only in well ventilated areas.  
Keep container in a well ventilated place.  
Do not empty into drains.  
Keep container tightly closed.  
Take off immediately all contaminated clothing.  
In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.  
If you feel unwell contact Doctor or Poisons Information Centre. (Show the label if possible).

---

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

---

NAME	CAS RN	%
white spirit	8052-41-3.	50-60
paraffinic distillate, heavy, solvent-dewaxed (severe)	64742-65-0.	10-15
hydrocarbon propellant	68476-85-7.	40-50

---

## Section 4 - FIRST AID MEASURES

---

### SWALLOWED

Not considered a normal route of entry.

- 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.

Avoid giving milk or oils.  
Avoid giving alcohol.

### EYE

If aerosols come in contact with the eyes:

- Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes 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.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

continued...

# 3-IN-ONE PROFESSIONAL ENGINE STARTER

ChemWatch Material Safety Data Sheet  
Issue Date: Thu 14-Oct-2004

CHEMWATCH 4720-33  
CD 2004/3 Page 3 of 11

---

## Section 4 - FIRST AID MEASURES ...

---

### SKIN

If solids or aerosol mists are deposited upon the skin:

- Flush skin and hair with running water (and soap if available).
- Remove any adhering solids with industrial skin cleansing cream.
- DO NOT use solvents.
- Seek medical attention in the event of irritation.

### INHALED

If aerosols, fumes or combustion products are inhaled:

- Remove to fresh air.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor.

### NOTES TO PHYSICIAN

Treat symptomatically.

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO<sub>2</sub> 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

---

## Section 5 - FIRE FIGHTING MEASURES

---

### EXTINGUISHING MEDIA

SMALL FIRE:

- Water spray, dry chemical or CO<sub>2</sub>

LARGE FIRE:

- Water spray or fog.

continued...

# 3-IN-ONE PROFESSIONAL ENGINE STARTER

ChemWatch Material Safety Data Sheet  
Issue Date: Thu 14-Oct-2004

CHEMWATCH 4720-33  
CD 2004/3 Page 4 of 11

---

## Section 5 - FIRE FIGHTING MEASURES ...

---

### FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- If safe, switch off electrical equipment until vapour fire hazard removed.
- Use water delivered as a fine spray to control fire and cool adjacent 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

- Liquid and vapour are flammable.
  - Moderate fire hazard when exposed to heat or flame.
  - Vapour forms an explosive mixture with air.
  - Moderate explosion hazard when exposed to heat or flame.
  - Vapour may travel a considerable distance to source of ignition.
  - Heating may cause expansion or decomposition leading to violent rupture of containers.
  - Aerosol cans may explode on exposure to naked flame.
  - Rupturing containers may rocket and scatter burning materials.
  - Hazards may not be restricted to pressure effects.
  - May emit acrid, poisonous or corrosive fumes.
  - On combustion, may emit toxic fumes of carbon monoxide (CO).
- Combustion products include  
carbon dioxide (CO<sub>2</sub>)  
phosphorus oxides (PO<sub>x</sub>)  
other pyrolysis products typical of burning organic material

### FIRE INCOMPATIBILITY

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

### HAZCHEM

2Y

### Personal Protective Equipment

PERSONAL PROTECTION EQUIPMENT  
Breathing apparatus.  
Chemical splash suit.

---

## Section 6 - ACCIDENTAL RELEASE MEASURES

---

### EMERGENCY PROCEDURES

continued...

# 3-IN-ONE PROFESSIONAL ENGINE STARTER

ChemWatch Material Safety Data Sheet  
Issue Date: Thu 14-Oct-2004

CHEMWATCH 4720-33  
CD 2004/3 Page 5 of 11

## Section 6 - ACCIDENTAL RELEASE MEASURES ...

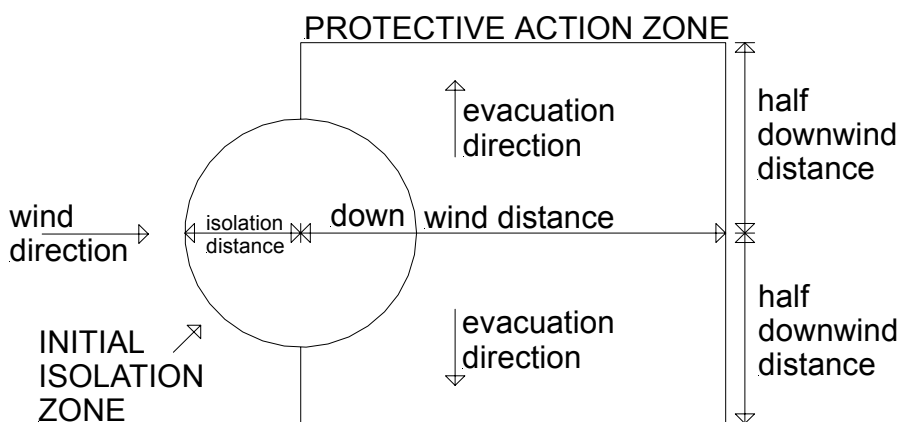
### MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Wear protective clothing, impervious gloves and safety glasses.
- Shut off all possible sources of ignition and increase ventilation.
- Wipe up.
- If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated.
- Undamaged cans should be gathered and stowed safely.

### MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Water spray or fog may be used to disperse / absorb vapour.
- Absorb or cover spill with sand, earth, inert materials or vermiculite.
- If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.
- Undamaged cans should be gathered and stowed safely.
- Collect residues and seal in labelled drums for disposal.

### PROTECTIVE ACTIONS FOR SPILL



From IERG (Canada/Australia)

Isolation Distance	-
Downwind Protection Distance	8 metres
IERG Number	49

### FOOTNOTES

1 PROTECTIVE ACTION ZONE is defined as the area in which people are at risk of harmful exposure. This zone assumes that random changes in wind direction confines the vapour plume to an area within 30 degrees on either side of the predominant wind direction, resulting in a crosswind protective action distance equal to the downwind protective action distance.

continued...

# 3-IN-ONE PROFESSIONAL ENGINE STARTER

ChemWatch Material Safety Data Sheet  
Issue Date: Thu 14-Oct-2004

CHEMWATCH 4720-33  
CD 2004/3 Page 6 of 11

---

## Section 6 - ACCIDENTAL RELEASE MEASURES ...

---

- 2 PROTECTIVE ACTIONS should be initiated to the extent possible, beginning with those closest to the spill and working away from the site in the downwind direction. Within the protective action zone a level of vapour concentration may exist resulting in nearly all unprotected persons becoming incapacitated and unable to take protective action and/or incurring serious or irreversible health effects.
- 3 INITIAL ISOLATION ZONE is determined as an area, including upwind of the incident, within which a high probability of localised wind reversal may expose nearly all persons without appropriate protection to life-threatening concentrations of the material.
- 4 SMALL SPILLS involve a leaking package of 200 litres (55 US gallons) or less, such as a drum (jerrican or box with inner containers). Larger packages leaking less than 200 litres and compressed gas leaking from a small cylinder are also considered "small spills".  
LARGE SPILLS involve many small leaking packages or a leaking package of greater than 200 litres, such as a cargo tank, portable tank or a "one-tonne" compressed gas cylinder.
- 5 Guide 126 is taken from the US DOT emergency response guide book.
- 6 IERG information is derived from CANUTEC - Transport Canada.

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

---

## Section 7 - HANDLING AND STORAGE

---

### PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.
  - Wear protective clothing when risk of exposure occurs.
  - Use in a well-ventilated area.
  - Prevent concentration in hollows and sumps.
  - DO NOT enter confined spaces until atmosphere has been checked.
  - Avoid smoking, naked lights or ignition sources.
  - Avoid contact with incompatible materials.
  - When handling, DO NOT eat, drink or smoke.
  - DO NOT incinerate or puncture aerosol cans.
  - DO NOT spray directly on humans, exposed food or food utensils.
  - 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.
- DO NOT allow clothing wet with material to stay in contact with skin

### SUITABLE CONTAINER

- Aerosol dispenser.
- Check that containers are clearly labelled.

continued...

# 3-IN-ONE PROFESSIONAL ENGINE STARTER

ChemWatch Material Safety Data Sheet  
Issue Date: Thu 14-Oct-2004

CHEMWATCH 4720-33  
CD 2004/3 Page 7 of 11

---

## Section 7 - HANDLING AND STORAGE ...

---

### STORAGE INCOMPATIBILITY

Avoid reaction with oxidising agents

### STORAGE REQUIREMENTS

Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can

- Store in original containers in approved flammable liquid storage area.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- No smoking, naked lights, heat or ignition sources.
- Keep containers securely sealed. Contents under pressure.
- Store away from incompatible materials.
- Store in a cool, dry, well ventilated area.
- Avoid storage at temperatures higher than 40 deg C.
- Store in an upright position.
- Protect containers against physical damage.
- Check regularly for spills and leaks.
- Observe manufacturer's storing and handling recommendations.

---

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

---

### EXPOSURE CONTROLS

None assigned. Refer to individual constituents.

### INGREDIENT DATA

#### WHITE SPIRIT:

PEL TWA: 500 ppm, 2900 mg/m<sup>3</sup> [OSHA Z1]

white spirit, as CAS RN 8052-41-3

ES TWA: 790 mg/m<sup>3</sup> (under review)

TLV TWA: 100 ppm, 525 mg/m<sup>3</sup>

IDLH Level: 20000 ppm

Low and high odour thresholds of 5.25 and 157.5 mg/m<sup>3</sup>, respectively, were considered to provide a rather useful index of odour as a warning property.

The TLV-TWA is calculated from data on the toxicities of the major ingredients and is intended to minimise the potential for irritative and narcotic effects, polyneuropathy and kidney damage produced by vapours.

The NIOSH (USA) REL-TWA of 60 ppm is the same for all refined petroleum solvents. NIOSH published an occupational "action level" of 350 mg/m<sup>3</sup> for exposure to Stoddard solvent, assuming a 10-hour work shift and a 40-hour work-week. The NIOSH-REL ceiling of 1800 mg/m<sup>3</sup> was established to protect workers from short-term effects that might produce vertigo or other adverse effects which might increase the risk of occupational accidents. Combined (gross) percutaneous absorption and inhalation exposure (at concentrations associated with nausea) are thought, by some, to be responsible for the development of frank hepatic toxicity and jaundice.

#### PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE):

oil mist, mineral

TLV TWA: 5 mg/m<sup>3</sup>; STEL: 10 mg/m<sup>3</sup>.

continued...

# 3-IN-ONE PROFESSIONAL ENGINE STARTER

ChemWatch Material Safety Data Sheet  
Issue Date: Thu 14-Oct-2004

CHEMWATCH 4720-33  
CD 2004/3 Page 8 of 11

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

### NOTICE OF INTENDED CHANGE.

TLV TWA 0.2 mg/m<sup>3</sup> inhalable fraction highly refined A4

NOTE: This substance has been classified by the ACGIH as A4

NOT classifiable as causing cancer in humans.

ES TWA: 5 mg/m<sup>3</sup> (oil mist, refined mineral)

Human exposure to oil mist alone has not been demonstrated to cause health effects except at levels above 5 mg/m<sup>3</sup> (this applies to particulates sampled by a method that does not collect vapour). It is not advisable to apply this standard to oils containing unknown concentrations and types of additive.

### HYDROCARBON PROPELLANT:

PEL TWA: 1000 ppm, 1800 mg/m<sup>3</sup> [OSHA Z1]

hydrocarbon propellant, as liquified petroleum gas

TLV TWA: 1000 ppm, 1800 mg/m<sup>3</sup>

ES TWA: 1000 ppm, 1800 mg/m<sup>3</sup>

OES TWA: 1000 ppm, 1750 mg/m<sup>3</sup>; STEL: 1250 ppm, 2180 mg/m<sup>3</sup>

## PERSONAL PROTECTION

### EYE

No special equipment for minor exposure i.e. when handling small quantities.

OTHERWISE: For potentially moderate or heavy exposures:

- Safety glasses with side shields.
- NOTE: Contact lenses pose a special hazard; soft lenses may absorb irritants and ALL lenses concentrate them.

### HANDS/FEET

No special equipment needed when handling small quantities.

OTHERWISE:

For potentially moderate exposures:

Wear general protective gloves, eg. light weight rubber gloves.

For potentially heavy exposures:

Wear chemical protective gloves, eg. PVC. and safety footwear.

### OTHER

No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.
- Skin cleansing cream.
- Eyewash unit.
- Do not spray on hot surfaces.

## ENGINEERING CONTROLS

General exhaust is adequate under normal 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.

continued...

# 3-IN-ONE PROFESSIONAL ENGINE STARTER

ChemWatch Material Safety Data Sheet  
Issue Date: Thu 14-Oct-2004

CHEMWATCH 4720-33  
CD 2004/3 Page 9 of 11

---

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

---

### APPEARANCE

Light amber liquid with a pleasant odour; does not mix with water.  
Supplied as an aerosol pack. Contents under PRESSURE. Contains highly flammable hydrocarbon propellant.

### PHYSICAL PROPERTIES

Liquid.  
Does not mix with water.  
Floats on water.

Molecular Weight: Not Applicable  
Melting Range (°C): Not Available  
Solubility in water (g/L): Immiscible  
pH (1% solution): Not Applicable  
Volatile Component (%vol): 90  
Relative Vapour Density (air=1): >1  
Lower Explosive Limit (%): 1.0  
Autoignition Temp (°C): Not Available  
State: Liquid

Boiling Range (°C): Not Available  
Specific Gravity (water=1): 0.785  
pH (as supplied): Not Applicable  
Vapour Pressure (kPa): Not Available  
Evaporation Rate: <1 BuAC = 1  
Flash Point (°C): -28.89 (TCC)  
Upper Explosive Limit (%): 6.0  
Decomposition Temp (°C): Not Available

---

## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

---

### CONDITIONS CONTRIBUTING TO INSTABILITY

- Elevated temperatures.
- Presence of open flame.
- Product is considered stable.
- Hazardous polymerisation will not occur.

---

## Section 11 - TOXICOLOGICAL INFORMATION

---

### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS SWALLOWED

Not normally a hazard due to physical form of product.  
Considered an unlikely route of entry in commercial/industrial environments  
Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733)

#### EYE

Direct eye contact with petroleum hydrocarbons can be painful, and the corneal epithelium may be temporarily damaged. Aromatic species can cause irritation and excessive tear secretion.

continued...

# 3-IN-ONE PROFESSIONAL ENGINE STARTER

ChemWatch Material Safety Data Sheet  
Issue Date: Thu 14-Oct-2004

CHEMWATCH 4720-33  
CD 2004/3 Page 10 of 11

---

## Section 11 - TOXICOLOGICAL INFORMATION ...

---

### SKIN

The material may accentuate any pre-existing dermatitis condition  
Spray mist may produce discomfort  
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

WARNING: Intentional misuse by concentrating/inhaling contents may be lethal. Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.

### CHRONIC HEALTH EFFECTS

Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS] Prolonged or continuous skin contact with the liquid may cause defatting with drying, cracking, irritation and dermatitis following. 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. WARNING: Aerosol containers may present pressure related hazards.

---

## Section 12 - ECOLOGICAL INFORMATION

---

Drinking Water Standards:  
hydrocarbon total: 10 ug/l (UK max.).  
DO NOT discharge into sewer or waterways.

---

## Section 13 - DISPOSAL CONSIDERATIONS

---

- Consult State Land Waste Management Authority for disposal.
- Discharge contents of damaged aerosol cans at an approved site.
- Allow small quantities to evaporate.
- DO NOT incinerate or puncture aerosol cans.
- Bury residues and emptied aerosol cans at an approved site.

---

## Section 14 - TRANSPORTATION INFORMATION

---



Shipping Name:  
AEROSOLS  
Dangerous Goods Class: 2.1

continued...

# 3-IN-ONE PROFESSIONAL ENGINE STARTER

ChemWatch Material Safety Data Sheet  
Issue Date: Thu 14-Oct-2004

CHEMWATCH 4720-33  
CD 2004/3 Page 11 of 11

---

## Section 14 - TRANSPORTATION INFORMATION ...

---

UN/NA Number: 1950  
ADR Number: None  
Packing Group: None  
Labels Required: flammable gas  
Additional Shipping Information:  
International Transport Regulations:  
IMO: 1950

## HAZCHEM

2Y

---

## Section 15 - REGULATORY INFORMATION

---

### POISONS SCHEDULE

None

### REGULATIONS

The following substances are found on Australian Inventory of Chemical Substances (AICS):

- white spirit (CAS: 8052-41-3)
- paraffinic distillate, heavy, solvent-dewaxed (severe) (CAS: 64742-65-0)
- hydrocarbon propellant (CAS: 68476-85-7)
- white spirit (CAS: 8052-41-3)

The following substances are found on white spirit (CAS: 8042-47-5) is found on the following regulatory lists::

- white spirit (CAS: 8052-41-3)

The following substances are found on Australian Inventory of Chemical Substances (AICS):

- white spirit (CAS: 8052-41-3)
- hydrocarbon propellant (CAS: 68476-86-8)

---

## Section 16 - OTHER INFORMATION

---

This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.

Issue Date: Thu 14-Oct-2004

Print Date: Thu 14-Oct-2004