

# WD-40 BULK

ChemWatch Material Safety Data Sheet  
Issue Date: Wed 11-Sep-2002

CHEMWATCH 11350  
CD 2002/4 Page 1 of 9

## IDENTIFICATION

### STATEMENT OF HAZARDOUS NATURE

**HAZARDOUS ACCORDING TO WORKSAFE AUSTRALIA CRITERIA.**

### SUPPLIER

Company: WD-40 Company (Australia P/L)  
Address:  
41 Rawson Street  
Epping  
NSW, 2121  
Australia  
Telephone: (+61 2) 9868 2200  
Fax: (+61 2) 9869 7512

Company: WD-40 Company (USA)

Product Name: WD-40 Bulk  
Other Names: Organic Mixture  
Product Code 61114 4Lt; 61124 4Lt Bonus  
Pack; 61115 5Lt Bonus Pk; 45020 20Lt,  
45200 200Lt.  
2/02

CAS RN No(s): None  
UN Number: 1268  
Packing Group: III  
Dangerous Goods Class: 3(3.2)  
Subsidiary Risk: None  
Hazchem Code: 3[Y]  
Poisons Schedule Number: S5

### USE

Lubricant, rust preventative, penetrant with moisture displacing property  
Cleaner which provides some corrosion protection.  
May be applied by brushing, wiping or dipping.  
Used according to manufacturers directions.  
The use of a quantity of material in an unventilated or confined space may  
result in increased exposure and an irritating atmosphere developing.

### PHYSICAL DESCRIPTION/PROPERTIES

#### APPEARANCE

Cloudy light amber flammable liquid; floats on water. Sweet solvent odour.  
Forms non-stable emulsions.

Boiling Point (°C): 149 min.  
Melting Point (°C): Not available.  
Vapour Pressure (kPa): Not available.  
Specific Gravity: 0.816 @ 12 C.  
Flash Point (°C): 43 Open Cup  
Lower Explosive Limit (%): 1.0  
Upper Explosive Limit (%): 6.0  
Solubility in Water (g/L): Immiscible

continued...

# WD-40 BULK

ChemWatch Material Safety Data Sheet  
Issue Date: Wed 11-Sep-2002

CHEMWATCH 11350  
CD 2002/4 Page 2 of 9

## IDENTIFICATION ...

### INGREDIENTS

NAME	CAS RN	%
solvent naphtha petroleum, medium aliphatic	64742-88-7	>60
petroleum base oil as paraffinic distillate, heavy, solvent-dewaxed (sev	64742-65-0.	10-30
corrosion inhibitor unregulated		<10
wetting agent unregulated		<10
fragrance		0-1

## HEALTH HAZARD

### ACUTE HEALTH EFFECTS

#### SWALLOWED

Considered an unlikely route of entry in commercial/industrial environments. The liquid is discomforting to the gastro-intestinal tract and may be harmful if swallowed. Ingestion may result in nausea, pain, vomiting. Vomit entering the lungs by aspiration may cause potentially lethal chemical pneumonitis.

#### EYE

The liquid is discomforting to the eyes and may cause reddening and swelling. The vapour is mildly discomforting to the eyes. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

#### SKIN

The liquid may produce skin discomfort following prolonged contact. Defatting and/or drying of the skin may lead to dermatitis. Open cuts, abraded or irritated skin should not be exposed to this material. The material may accentuate any pre-existing dermatitis condition. The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

#### INHALED

The vapour is discomforting to the upper respiratory tract. Acute effects from inhalation of high vapour concentrations may be chest and nasal irritation with coughing, sneezing, headache and even nausea. If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death. Inhalation of vapour may aggravate a pre-existing respiratory condition such as asthma, bronchitis, emphysema

### CHRONIC HEALTH EFFECTS

Principal routes of exposure are by accidental skin and eye contact and by inhalation of vapours especially at higher temperatures. Prolonged or continuous skin contact with the liquid may cause defatting with

continued...

# WD-40 BULK

ChemWatch Material Safety Data Sheet  
Issue Date: Wed 11-Sep-2002

CHEMWATCH 11350  
CD 2002/4 Page 3 of 9

## HEALTH HAZARD ...

drying, cracking, irritation and dermatitis following.  
Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS].  
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.

## FIRST AID

### SWALLOWED

For advice, contact a Poisons Information Centre or a doctor.  
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 unconsciousness  
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:  
Immediately hold eyelids apart and flush the eye continuously with 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.  
Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.  
Transport to hospital or doctor without delay.  
Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

### SKIN

If skin contact occurs:  
Immediately remove all contaminated clothing, including footwear  
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.  
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.  
Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.  
Transport to hospital, or doctor.

## ADVICE TO DOCTOR

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.

continued...

# WD-40 BULK

ChemWatch Material Safety Data Sheet  
Issue Date: Wed 11-Sep-2002

CHEMWATCH 11350  
CD 2002/4 Page 4 of 9

## HEALTH HAZARD ...

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]

## PRECAUTIONS FOR USE

## EXPOSURE STANDARDS

None assigned. Refer to individual constituents.

## INGREDIENT DATA

### SOLVENT NAPHTHA PETROLEUM, MEDIUM ALIPHATIC:

TLV TWA: 300 ppm A3 [ACGIH]

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

as VM & P Naphtha (petroleum ether) (CAS RN: 8032-32-4)

TLV TWA: 300 ppm, A3

Naphthas of this type produce central nervous system depression and are mild irritants of the eyes and upper respiratory tract. The carcinogenic potential of middle petroleum distillates is recognised and is related to the content of polynuclear aromatic hydrocarbons

(PAHs). The TLV is thought to be protective against the acute effects of upper respiratory tract and eye irritation and chronic systemic effects.

CAUTION: This substance has been classified by the ACGIH as A3

Animal carcinogen (at relatively high doses).

for petroleum distillates:

CEL TWA: 500 ppm, 2000 mg/m<sup>3</sup> (compare OSHA TWA)

[Manufacturer]

### PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEV:

PEL TWA: 5 mg/m<sup>3</sup> [OSHA Z1]

oil mist, mineral

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

NOTICE OF INTENDED CHANGE.

TLV TWA 0.2 mg/m<sup>3</sup> inhalable fraction A2

WARNING: This substance has been classified by the ACGIH as A2

Suspected Human Carcinogen.

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.

continued...

# WD-40 BULK

ChemWatch Material Safety Data Sheet  
Issue Date: Wed 11-Sep-2002

CHEMWATCH 11350  
CD 2002/4 Page 5 of 9

## PRECAUTIONS FOR USE ...

### ENGINEERING CONTROLS

Use in a well-ventilated area.

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant: solvent, vapours, degreasing etc., evaporating from tank (in still air). aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	Air Speed: 0.25-0.5 m/s (50-100 f/min)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	0.5-1 m/s (100-200 f/min.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	1-2.5 m/s (200-500 f/min.)
	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range

- 1: Room air currents minimal or favourable to capture
- 2: Contaminants of low toxicity or of nuisance value only.
- 3: Intermittent, low production.
- 4: Large hood or large air mass in motion

Upper end of the range

- 1: Disturbing room air currents
- 2: Contaminants of high toxicity
- 3: High production, heavy use
- 4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

### PERSONAL PROTECTION

continued...

# WD-40 BULK

ChemWatch Material Safety Data Sheet  
Issue Date: Wed 11-Sep-2002

CHEMWATCH 11350  
CD 2002/4 Page 6 of 9

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## PRECAUTIONS FOR USE ...

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### EYE

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

### HANDS/FEET

Barrier cream and Polyethylene gloves or.  
Wear chemical protective gloves, eg. PVC.  
Wear safety footwear.  
DO NOT use this product to clean the skin

### OTHER

Overalls.  
Eyewash unit.

### RESPIRATOR

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

Protection Factor	Half-Face Respirator	Full-Face Respirator
10 x ES	A-AUS A-PAPR-AUS	-
50 x ES	Air-line*	-
100 x ES	-	A-3
100+ x ES	-	Air-line**

\* - Continuous-flow; \*\* - Continuous-flow or positive pressure demand

^ - 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.

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## SAFE HANDLING

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### STORAGE AND TRANSPORT

#### SUITABLE CONTAINER

Check all containers are clearly labelled and free from leaks.

#### STORAGE INCOMPATIBILITY

Avoid storage with oxidisers

#### STORAGE REQUIREMENTS

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.  
Store away from incompatible materials in a cool, dry, well-ventilated area.

continued...

# WD-40 BULK

ChemWatch Material Safety Data Sheet  
Issue Date: Wed 11-Sep-2002

CHEMWATCH 11350  
CD 2002/4 Page 7 of 9

## SAFE HANDLING ...

Protect containers against physical damage and check regularly for leaks.  
Observe manufacturer's storing and handling recommendations.

## TRANSPORTATION

Class 3 - Flammable liquids shall not be loaded in the same vehicle or packed in the same vehicle or packed in the same freight container with:  
Class 1 - Explosives;  
Class 2.1 - Flammable gases (where both flammable liquids and flammable gases are in bulk);  
Class 2.3 - Poisonous gases;  
Class 4.2 - Spontaneously combustible substances;  
Class 5.1 - Oxidising agents;  
Class 5.2 - Organic peroxides;  
Class 7 - Radioactive substances.

## SPILLS AND DISPOSAL

### MINOR SPILLS

Remove all ignition sources.  
Clean up all spills immediately.  
Avoid breathing vapours and contact with skin and eyes.  
Control personal contact by using protective equipment.  
Contain and absorb small quantities with vermiculite or other absorbent material.  
Wipe up.  
Collect residues in a flammable waste container.

### 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 course.  
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.  
Contain spill with sand, earth or vermiculite.  
Use only spark-free shovels and explosion proof equipment.  
Collect recoverable product into labelled containers for recycling.  
Absorb remaining product with sand, earth or vermiculite.  
Collect solid residues and seal in labelled drums for disposal.  
Wash area and prevent runoff into drains.  
If contamination of drains or waterways occurs, advise emergency services.

### DISPOSAL

Consult manufacturer for recycling options and recycle where possible .  
Consult State Land Waste Management Authority for disposal.  
Incinerate residue at an approved site.  
Recycle containers if possible, or dispose of in an authorised landfill.  
thoroughly cleaned or reconditioned the drum seams may retain sufficient solvent to generate an explosive atmosphere in the drum.

## FIRE FIGHTERS' REPORT

continued...

# WD-40 BULK

ChemWatch Material Safety Data Sheet  
Issue Date: Wed 11-Sep-2002

CHEMWATCH 11350  
CD 2002/4 Page 8 of 9

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## SAFE HANDLING ...

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### EXTINGUISHING MEDIA

Foam.  
Dry chemical powder.  
BCF (where regulations permit).  
Carbon dioxide.  
Water spray or fog - Large fires only.

### 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.  
Avoid spraying water onto liquid pools.  
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.  
When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 500 metres in all directions.

### 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.  
On combustion, may emit toxic fumes of carbon monoxide (CO).  
Other combustion products include carbon dioxide (CO<sub>2</sub>)

### FIRE INCOMPATIBILITY

Avoid contamination with strong oxidising agents as ignition may result

### HAZCHEM

3[Y]

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## CONTACT POINT

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COMPANY CONTACT  
(+61 2) 9868 2200

AUSTRALIAN POISONS INFORMATION CENTRE  
24 HOUR SERVICE: 13 11 26  
POLICE, FIRE BRIGADE OR AMBULANCE: 000

NEW ZEALAND POISONS INFORMATION CENTRE  
24 HOUR SERVICE: (03) 4747 000  
NZ EMERGENCY SERVICES: 111

End of Report

Issue Date: Wed 11-Sep-2002

continued...

# WD-40 BULK

ChemWatch Material Safety Data Sheet  
Issue Date: Wed 11-Sep-2002

CHEMWATCH 11350  
CD 2002/4 Page 9 of 9

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## CONTACT POINT ...

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