

SERVISOL

***ELECTUS DISTRIBUTION NA1025 WATER DISPLACER LUBRICANT
ChemWatch Full Report (REVIEW) CHEMWATCH 4904-7
Date of Issue: Tues 13-Nov-2007***

DISTRIBUTOR

Electus Distribution Pty Ltd
100 Silverwater Road
Silverwater NSW 2128
Phone: 02 9741 8555 Fax: 02 9741 8535

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS ACCORDING TO WORKSAFE AUSTRALIA CRITERIA.

CHEMWATCH HAZARD RATINGS

Flammability: 2
Toxicity: 2
Body Contact: 2
Reactivity: 0
Chronic: 2
SCALE: Min/Nil=0 Low=1 Moderate=2 High=3 Extreme=4

PERSONAL PROTECTIVE EQUIPMENT FOR INDUSTRIAL/COMMERCIAL ENVIRONMENTS

Short Gloves
Goggles
Overalls
Half Face Respirator

MATERIAL DETAILS

CAS RN No(s): None
NIOSH No: None
UN No: 1993
DANGEROUS G. CLASS: 3
SUB RISK: None
PACKING GROUP: III

POISONS SCHEDULE: S5
EPG: 3A1
IERG: 14
IMO CLASS: 3.3
IMDG PAGE: 3345
HAZCHEM: 3[Y]
LABEL: Flammable Liquid[3]

SHIPPING NAME

FLAMMABLE LIQUID, N.O.S. (contains white spirit)

USE

Used as a rust preventative, lubricant, penetrant and moisture displacer which also provides corrosion protection.

APPEARANCE

Pale amber flammable liquid with hydrocarbon odour; does not mix with water.

PHYSICAL PROPERTIES

Molecular Weight: Not applicable
Boiling Range (°C): Not available
Melting Range (°C): Not available
Specific Gravity (water=1): <1
Solubility in water (g/L): Immiscible
pH (as supplied): Not applicable
pH (1% solution): Not applicable
Vapour Pressure (kPa): Not available
Volatile Component (%vol): >60
Evaporation Rate: Not available
Relative Vapour Density (air=1): >1
Flash Point (°C): 31 white spirit
Lower Explosive Limit (%): Not available
Upper Explosive Limit (%): Not available
Autoignition Temp (°C): Not available
Decomposition Temp (°C): Not available
State: Liquid

INGREDIENTS

NAME	CAS RN	%
white spirit	8052-41-3.	>60
mineral oil	Not	1-10

avail.

additives unregulated 1-10

NOTE: Manufacturer has supplied full ingredient information to allow CHEMWATCH assessment.

SYNONYMS

anti-corrosion lubricant dewatering fluid

HEALTH HAZARD

ACUTE HEALTH EFFECTS

SWALLOWED

Considered an unlikely route of entry in commercial/industrial environments
The liquid is highly discomforting 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 highly discomforting to the eyes and is capable of causing a mild, temporary redness of the conjunctiva (similar to wind-burn), temporary impairment of vision and/ or other transient eye damage/ ulceration
The vapour is mildly discomforting to the eyes

SKIN

The liquid is mildly discomforting to the skin and may cause drying of the skin, which may lead to dermatitis from repeated exposures over long periods
The material may accentuate any pre-existing skin condition

INHALED

The vapour/liquid is discomforting to the upper respiratory tract and lungs
Inhalation of vapour is more likely at higher than normal temperatures.
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.
If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are usually by skin contact/absorption and inhalation of vapour
Prolonged or continuous skin contact with the liquid may cause defatting with

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

FIRST AID

SWALLOWED

If poisoning occurs, contact a doctor or Poisons Information Centre.
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:
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.

None assigned. Refer to individual constituents.

ODOUR SAFETY FACTOR (OSF)

OSF=0.042 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 Idem for 50-90% of persons being distracted C 1-26 Idem 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 Idem 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/m³): 525 mg/m³ If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be over overexposed. Component Breathing Zone ppm Breathing Zone mg/m³ Mixture Conc: (%) white spirit 100 525 98 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 over overexposed. At the "Composite Exposure Standard for Mixture" (TWA) (mg/m³): 98 mg/m³ Component Breathing Zone ppm Breathing Zone mg/m³ Mixture Conc (%) mineral oil 5.3571 10

INGREDIENT DATA

WHITE SPIRIT: white spirit, as CAS RN 8052-41-3 ES TWA: 790 mg/m³ (Under review) TLV TWA: 100 ppm, 525 mg/m³ IDLH Level: 20000 ppm Low and high odour thresholds of 5.25 and 157.5 mg/m³, 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 REL-TWA of 60 ppm is the same for all refined petroleum solvents. NIOSH published an occupational "action level" of 350 mg/m³ for exposure to Stoddard solvent assuming a 10-hour work shift and a 40 hour workweek. The NIOSH-REL Ceiling of 1800 mg/m³ 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. MINERAL OIL: NOTICE OF INTENDED CHANGE TLV TWA: 5 mg/m³ () [ACGIH] TLV STEL: NOTICE OF INTENDED CHANGE 10 mg/m³ [ACGIH] PEL TWA: 5 mg/m³ [OSHA Z1] oil mist, mineral TLV TWA: 5 mg/m³; STEL: 10 mg/m³. NOTICE OF INTENDED CHANGE. TLV TWA 0.2 mg/m³ inhalable fraction A2 WARNING: This substance has been classified by the ACGIH as A2 Suspected Human Carcinogen. ES TWA: 5 mg/m³ (oil mist, refined mineral) Human exposure to oil mist alone has not been demonstrated to cause health effects except at levels above 5 mg/m³ (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.

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:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min)
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)	0.5-1 m/s (100-200 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)	1-2.5 m/s (200-500 f/min.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	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

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 with polyethylene gloves Wear chemical protective gloves, eg. PVC. Wear safety footwear. DO NOT use this product to clean the skin

OTHER

Overalls. Barrier cream 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.

HANDLING PROCEDURES

Avoid all personal contact, including inhalation.
Wear protective clothing when risk of overexposure 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 generation of static electricity.
DO NOT use plastic buckets.
Earth all lines and equipment.
Use spark-free tools when handling.
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.

CONDITION CONTRIBUTING TO INSTABILITY

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

SAFE HANDLING

STORAGE

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.

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

MINOR SPILLS

Slippery when spilt.

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

Slippery when spilt.
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.

PROTECTIVE ACTIONS FOR SPILL

From IERG (Canada/Australia)
Isolation Distance 25 metres
Downwind Protection Distance 300 metres

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.
- 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 128 is taken from the US DOT emergency response guide book.
- 6 IERG information is derived from CANUTEC - Transport Canada.

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.

FIRE FIGHTERS' REPORT

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 (CO₂)

FIRE INCOMPATIBILITY

Avoid contamination with strong oxidising agents as ignition may result

ENVIRONMENTAL

No data for W.D. LUBE.
Refer to data for ingredients, which follows:

WHITE SPIRIT:

No data for white spirit.

MINERAL OIL:

No data for mineral oil.

CONTACT POINT

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

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