Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
WD-40 SPECIALIST HIGH PERFORMANCE SILICONE LUBRICANT

PROPER SHIPPING NAME
AEROSOLS

PRODUCT USE
- The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation.
Application is by spray atomisation from a hand held aerosol pack.
Used according to manufacturer's directions.
Silicone lubricant spray.

SUPPLIER
Company: WD-40 Company Australia Pty Ltd
Address:
Level 2, Suite 23, 41 Rawson Street
Epping
NSW, 2121
Australia
Telephone: +61 2 9868 2200
Emergency Tel: 1800 024 973
Fax: +61 2 9869 7512

Section 2 - HAZARDS IDENTIFICATION

GHS Classification
Flammable Aerosol Category 1
Skin Corrosion/Irritation Category 2
STOT - SE Category 3

EMERGENCY OVERVIEW
DANGER
Determined by Chemwatch using GHS criteria
H222 Extremely flammable aerosol.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
AUH044 Risk of explosion if heated under confinement

PRECAUTIONARY STATEMENTS
Prevention
Code Phrase
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash ... thoroughly after handling.
P271 Use only outdoors or in a well- ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response
Code Phrase
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362 Take off contaminated clothing and wash before re- use.

Storage
Code Phrase
P403+P233 Store in a well- ventilated place. Keep container tightly closed.

continued...
Section 2 - HAZARDS IDENTIFICATION

P405 Store locked up.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal

Code P501 Dispose of contents/container to ... 

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>NAME</th>
<th>CAS RN</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>distillates, petroleum, light, hydrotreated</td>
<td>64742-47-8</td>
<td>35-40</td>
</tr>
<tr>
<td>white spirit</td>
<td>8052-41-3</td>
<td>25-30</td>
</tr>
<tr>
<td>polydimethylsiloxane</td>
<td>63148-62-9</td>
<td>2-4</td>
</tr>
<tr>
<td>hydrocarbon propellant</td>
<td>68476-85-7</td>
<td>25-35</td>
</tr>
</tbody>
</table>

Section 4 - FIRST AID MEASURES

SWALLOWED

• Avoid giving milk or oils.
• Avoid giving alcohol.
• 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.

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.

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.

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 (pO2 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.

continued...
Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
■ SMALL FIRE:
  • Water spray, dry chemical or CO2
LARGE FIRE:
  • Water spray or fog.

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.

FIRE/EXPLOSION HAZARD
• Liquid and vapour are highly flammable.
• Severe fire hazard when exposed to heat or flame.
• Vapour forms an explosive mixture with air.
• Severe explosion hazard, in the form of vapour, when exposed to flame or spark.
Combustion products include: carbon dioxide (CO2), other pyrolysis products typical of burning organic material.
Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.

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

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.

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING
• DO NOT allow clothing wet with material to stay in contact with skin.
• 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.

SUITABLE CONTAINER
• Aerosol dispenser.
• Check that containers are clearly labelled.

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.

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

**EXPOSURE CONTROLS**

<table>
<thead>
<tr>
<th>Source</th>
<th>Material</th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia Exposure Standards</td>
<td>WD-40 SPECIALIST HIGH PERFORMANCE SILICONE LUBRICANT (Oil mist, refined mineral)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia Exposure Standards</td>
<td>WD-40 SPECIALIST HIGH PERFORMANCE SILICONE LUBRICANT (White spirits)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>790</td>
<td></td>
<td>(see Chapter 16)</td>
</tr>
<tr>
<td>Australia Exposure Standards</td>
<td>WD-40 SPECIALIST HIGH PERFORMANCE SILICONE LUBRICANT (LPG (liquefied petroleum gas))</td>
<td>1000</td>
<td>1800</td>
<td></td>
</tr>
</tbody>
</table>

The following materials had no OELs on our records:

- polydimethylsiloxane: CAS: 63148-62-9

**MATERIAL DATA**

DISTILLATES, PETROLEUM, LIGHT, HYDROTREATED:

- **POLYDIMETHYLSILOXANE:**
  - Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat.
  - Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations.

WD-40 SPECIALIST HIGH PERFORMANCE SILICONE LUBRICANT:

- Not available

DISTILLATES, PETROLEUM, LIGHT, HYDROTREATED:

- **for kerosene CAS 8008-20-6**
  - TLV TWA: 100 mg/m³ as total hydrocarbon vapour Skin A3
  - OEL TWA: 14 ppm, 100 mg/m³ [NIOSH, 1985]
  - REL TWA: 150 ppm [Shell]
- **for petroleum distillates:**
  - CEL TWA: 500 ppm, 2000 mg/m³ (compare OSHA TWA)
  - (CEL = Chemwatch Exposure Limit).
- **for white spirit:**
  - 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 irritating and narcotic effects, polyneuropathy and kidney damage produced by vapours.

HYDROCARBON PROPELLANT:

- **for butane:**
  - Odour Threshold Value: 2591 ppm (recognition)
  - Butane in common with other homologues in the straight chain saturated aliphatic hydrocarbon series is not characterised by its toxicity but by its narcosis-inducing effects at high concentrations. The TLV is based on analogy with pentane by comparing their lower explosive limits in air.
  - Odour Safety Factor(OSF)
    - OSF=0.22 (n-BUTANE).
  - For propane
    - Odour Safety Factor(OSF)
      - OSF=0.16 (PROPANE).

**PERSONAL PROTECTION**

**RESPIRATOR**


**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.

continued...
HANDS/FEET
• No special equipment needed when handling small quantities.
• OTHERWISE:
  • For potentially moderate exposures:
    • Wear general protective gloves, eg. light weight rubber gloves.

OTHER
• No special equipment needed when handling small quantities.
OTHERWISE:
• Overalls.
• Skin cleansing cream.
• Eyewash unit.
• Do not spray on hot surfaces.

ENGINEERING CONTROLS
• Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:
• Process controls which involve changing the way a job activity or process is done to reduce the risk.
• Enclosure and/or isolation of emission source which keeps a selected hazard “physically” away from the worker and ventilation that strategically “adds” and “removes” air in the work environment.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE
• Supplied as an aerosol pack. Contents under PRESSURE.
Clear liquid with a petroleum odour; does not mix with water.

PHYSICAL PROPERTIES
• Liquid.
• Gas.
• Does not mix with water.
• Floats on water.

State Liquid
Melting Range (°C) Not Available
Boiling Range (°C) Not Available
Flash Point (°C) -29 (TOC)
Decomposition Temp (°C) Not Available
Autoignition Temp (°C) Not Available
Upper Explosive Limit (%) 9.5
Lower Explosive Limit (%) 1.8
Volatile Component (%vol) 98

Molecular Weight Not Applicable
Viscosity Not Available
Solubility in water (g/L) Immiscible
pH (1% solution) Not Applicable
pH (as supplied) 40-60 PSI @ 21C
Specific Gravity (water=1) 0.75
Relative Vapour Density Not Applicable
Evaporation Rate 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.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

Health hazard summary table:
Acute toxicity Not applicable
Skin corrosion/irritation Skin Irrit. 2
Serious eye damage/irritation Not applicable
Respiratory or skin sensitization Not applicable
Germ cell mutagenicity Not applicable

continued...
Carcinogenicity
Reproductive toxicity
STOT - single exposure
STOT - repeated exposure
Aspiration hazard

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

- Considered an unlikely route of entry in commercial/industrial environments. The liquid may produce gastrointestinal discomfort and may be harmful if swallowed.

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.

SKIN

- This material can cause inflammation of the skin on contact in some persons.
- The material may accentuate any pre-existing dermatitis condition.
- 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.
- Aromatic hydrocarbons may produce sensitivity and redness of the skin.
They are not likely to be absorbed into the body through the skin but branched species are more likely to.

INHALED

- 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.
- Exposure to white spirit may cause nausea and vertigo.
- WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.

CHRONIC HEALTH EFFECTS

- Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin. Chronic exposure to lighter hydrocarbons can cause nerve damage, peripheral neuropathy, bone marrow dysfunction and psychiatric disorders as well as damage the liver and kidneys.
Chronic solvent inhalation exposures may result in nervous system damage and liver and blood changes. [PATTYS].
WARNING: Aerosol containers may present pressure related hazards.

TOXICITY AND IRRITATION

- Not available. Refer to individual constituents.

CARCINOGEN

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs</th>
<th>Group</th>
<th>Carcinogenicity to Humans</th>
</tr>
</thead>
<tbody>
<tr>
<td>white spirit</td>
<td></td>
<td>3</td>
<td>Not classifiable as</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>to its</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>carcinogenicity to</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>humans</td>
</tr>
</tbody>
</table>

SKIN

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>GESAMP/EHS Composite List - GESAMP Hazard Profiles</th>
<th>Hazard</th>
<th>Irritation/Corrosion</th>
</tr>
</thead>
<tbody>
<tr>
<td>white spirit</td>
<td></td>
<td>D1: skin</td>
<td>1</td>
</tr>
</tbody>
</table>

Section 12 - ECOLOGICAL INFORMATION

This material and its container must be disposed of as hazardous waste.

Ecotoxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Persistence: Water/Soil</th>
<th>Persistence: Air</th>
<th>Bioaccumulation</th>
<th>Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>distillates, petroleum, light, hydrotreated</td>
<td>No Data</td>
<td>No Data</td>
<td>No Data</td>
<td>No Data</td>
</tr>
<tr>
<td>white spirit</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
</tr>
</tbody>
</table>
Section 12 - ECOLOGICAL INFORMATION

polydimethylsiloxane | No Data | No Data | LOW | No Data
hydrocarbon propellant | No Data | No Data | Available | No Data

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.

Section 14 - TRANSPORTATION INFORMATION

Labels Required: FLAMMABLE GAS

HAZCHEM:
2YE (ADG7)

ADG7:
Class or Division: 2.1
UN No.: 1950
Special Provision: 63 190 277 327
Portable Tanks & Bulk Containers: None
Instruction: P003 LP02
Packaging Instruction: PP17 PP87 L2

Name and Description: AEROSOLS

Air Transport IATA:
ICAO/IATA Class: 2.1
UN/ID Number: 1950
Special provisions: A145

Shipping name: AEROSOLS

Maritime Transport IMDG:
IMDG Class: 2.1
UN Number: 1950
EMS Number: F- D, S- U
Limited Quantities: See SP277
Shipping name: AEROSOLS

Section 15 - REGULATORY INFORMATION

Indications of Danger:
F+ Extremely flammable
Xi Irritant

POISONS SCHEDULE: None

REGULATIONS

Regulations for ingredients

continued...
WD-40 SPECIALIST HIGH PERFORMANCE SILICONE LUBRICANT

CHEMWATCH 4944-64

Version No:8.1.1.1

CD 2013/2 Page 8 of 8

Section 15 - REGULATORY INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydrocarbon propellant</td>
<td>68476-85-7, 68476-86-8</td>
</tr>
</tbody>
</table>

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references. A list of reference resources used to assist the committee may be found at: www.chemwatch.net/references.

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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.