Material Safety Data Sheet

SHELLSOL A100

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Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name SHELLSOL A100

Company Name Oilchem Pty Ltd

Address 55-57 Miller Road Epping
Victoria 3076

Emergency Tel. 1800 638 556 24 hr

Telephone/Fax Number Tel: (03) 9401-3377
Fax: (03) 9401-4657

Recommended Use Recommended Uses : Industrial Solvent.

Other Names

Name	Product Code
PETROLEUM DISTILLATES, N.O.S.(PETROLEUM NAPHTHA)	

Additional Information Telephone : +61 1300 669988
Fax : +61 1300 669987

Emergency Telephone Number : 1800 651 818 (24 hours) / (International) +61 3 8823 3095

Other Information : ShellSol is a trademark owned by Shell Trademark Management B.V. and Shell Brands Inc. and used by affiliates of Royal Dutch Shell plc.

2. HAZARDS IDENTIFICATION

Hazard HAZARDOUS SUBSTANCE.

Classification DANGEROUS GOODS.

Hazard classification according to the criteria of NOHSC.
Dangerous goods classification according to the Australia Dangerous Goods Code.

Risk Phrase(s) R10 Flammable.
R37 Irritating to respiratory system.
R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness and cracking.
R67 Vapours may cause drowsiness and dizziness
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrase(s) S23 Do not breathe gas/fumes/vapour/spray.
S24 Avoid contact with the skin.
S61 Avoid release to the environment. Refer to special instructions/safety data sheets.
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
S 2 Keep out of the reach of children.

Signs and Symptoms of Exposure Respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, coughing, and/or difficulty breathing. Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance. Auditory system effects may include temporary hearing loss and/or ringing in the ears.

Safety Hazards Flammable. In use, may form flammable/explosive vapour-air mixture. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire.

Environmental Hazards Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Information on Composition Material Formal Name : Solvent naphtha (petroleum), light aromatic
CAS No. : 64742-95-6
INDEX No. : 649-356-00-4
EINECS No. : 265-199-0

Hazardous Components
Chemical Name EINECS Symbol(s) R-phrase(s)
1,2,4-Trimethyl benzene 202-436-9 Xi, N R20;

R36/37/38;
R51/53
1,3,5-Trimethyl benzene 203-604-4 Xi, N R37; R51/53
1,2,3-Trimethyl benzene 208-394-8
n-Propyl benzene 203-132-9 Xn, N R10; R37;
R51/53; R65
Cumene 202-704-5 Xn, N R10; R37;
R51/53; R65
Xylene, Mixed Isomers 215-535-7 Xn R10;
R20/21; R38

Ingredients	**Name**	**CAS**	**Proportion**
	1,2,4-Trimethyl Benzene	95-63-6	< 50.00 %W
	1,3,5-Trimethyl benzene	108-67-8	< 20.00 %W
	1,2,3-Trimethyl benzene	526-73-8	< 10.00 %W
	n-propyl benzene	103-65-1	< 10.00 %W
	CUMENE	98-82-8	< 10.00 %W
	Xylene, mixed isomers	1330-20-7	< 30.00 %W

Other Information Additional Information : Refer to chapter 16 for full text of EC R-phrases.

4. FIRST AID MEASURES

Inhalation Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.

Ingestion If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (37° C), shortness of breath, chest congestion or continued coughing or wheezing.

Skin Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.

Eye Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.

Advice to Doctor Potential for chemical pneumonitis. Call a doctor or poison control center for guidance. Causes central nervous system depression. Dermatitis may result from prolonged or repeated exposure.

5. FIRE FIGHTING MEASURES

Fire Fighting Measures	Clear fire area of all non-emergency personnel.
Suitable Extinguishing Media	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. Do not discharge extinguishing waters into the aquatic environment.
Special Protective Equipment for fire fighters	Protective Equipment for Firefighters : Wear full protective clothing and self-contained breathing apparatus.
Specific Hazards	Carbon monoxide may be evolved if incomplete combustion occurs. Will float and can be reignited on surface water. The vapour is heavier than air, spreads along the ground and distant ignition is possible.
Hazchem Code	3Y
Unsuitable Extinguishing Media	Do not use water in a jet.
Other Information	Additional Advice : Keep adjacent containers cool by spraying with water. Hazchem Code : 3Y - For fire fighting, use foam (alcohol resistant foam may be required). Risk of explosion. Breathing apparatus, firefighting gear and chemically impervious protective gloves should be worn. Prevent spillage from entering drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures	Observe all relevant local and international regulations.
Personal Protection	Avoid contact with spilled or released material. Immediately remove all contaminated clothing. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Material Safety Data Sheet. Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and fire fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take

	precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Monitor area with combustible gas indicator.
Clean-up Methods - Small Spillages	For small liquid spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
Clean-up Methods - Large Spillages	For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
Other Information	Additional Advice : See Chapter 13 for information on disposal. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

7. HANDLING AND STORAGE

Handling and Storage	General Precautions : Avoid breathing vapours or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. On guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
Precautions for Safe Handling	Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Avoid contact with skin, eyes, and clothing. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<= 1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations.
Conditions for Safe Storage	Must be stored in a diked (bunded) well-ventilated area, away from sunlight, ignition sources and other sources of heat. Bulk storage tanks should be diked (bunded). Keep away from aerosols, flammables, oxidizing agents, corrosives and from other flammable products which are not harmful or toxic to man or to the environment. Storage Temperature: Ambient.
Product	Keep containers closed when not in use. Do not use

Transfer	compressed air for filling, discharging or handling.
Recommended Materials	For containers, or container linings use mild steel, stainless steel. For container paints, use epoxy paint, zinc silicate paint.
Unsuitable Materials	Avoid prolonged contact with natural, butyl or nitrile rubbers.
Other Information	Container Advice : Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards

Occupational Exposure Limits
In the absence of occupational exposure standards for this product, it is recommended that the following are adopted.

Material Source Type mg/m3
RCP HSPA TWA (8 h) 100 mg/m3
Aromatic OELs
solvents
160 - 185

Additional Information : SHELL IS is the Shell Internal Standard. Wash hands before eating, drinking, smoking and using the toilet.

Biological Limit Values

Biological Exposure Index (BEI) - See reference for full details
Material Determinant Sampling time BEI Reference
Xylene, Methylhippuric End of shift 1.5 g/g creatinine ACGIH (2003)
Mixed Isomers acids in urine

Engineering Controls

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits. Eye washes and showers for emergency use.

Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for organic gases and vapours [boiling point >65 °C (149 °F)] meeting EN141. Where

air-filtering respirators are unsuitable (e.g., airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.

Eye Protection Chemical splash goggles (chemical monogoggles).

Hand Protection Longer term protection: Nitrile rubber gloves Incidental contact/Splash protection: PVC or neoprene rubber gloves Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Personal Protective Equipment Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Body Protection Use protective clothing which is chemical resistant to this material. Safety shoes and boots should also be chemical resistant.

Other Information Monitoring Methods :
Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Examples of sources of recommended air monitoring methods are given below or contact supplier. Further national methods may be available. National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods, http://www.cdc.gov/niosh/nmam/nmammenu.html. Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods, http://www.oshaslc.gov/dts/sltc/methods/toc.html. Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances, http://www.hsl.gov.uk/publications/mdhs.aspx.

Environmental Exposure Controls :
Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Colourless Liquid.

Odour Aromatic

Melting Point Not applicable.

Freezing Point Not applicable.

Boiling Point 150 - 185 °C / 302 - 365 °F

Solubility in Water	Insoluble.
Solubility in Organic Solvents	Aliphatics Miscible. Aromatics Miscible.
Specific Gravity	0.87 - 0.88 at 20 °C / 68 °F
pH Value	Not applicable.
Vapour Pressure	210 - 1,300 Pa at 20 °C / 68 °F
Vapour Density (Air=1)	4.3
Evaporation Rate	< 1.0 (ASTM D 3539, nBuAc=1)
Density	Typical 876 kg/m3 at 15 °C / 59 °F(ASTM D-4052)
Flash Point	38 - 50 °C / 100 - 122 °F(IP 170)
Auto-Ignition Temperature	507 °C / 945 °F(ASTM E-659)
Explosion Limit - Upper	7 %(V)
Explosion Limit - Lower	0.6 %(V)
Other Information	Volatile organic carbon content : 90 % (EC/1999/13)

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions of use.
Conditions to Avoid	Avoid heat, sparks, open flames and other ignition sources.
Incompatible Materials	Strong oxidising agents.
Hazardous Decomposition Products	Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	Repeated Dose Toxicity : Auditory system: prolonged and repeated exposures to high concentrations have resulted in hearing loss in rats. Solvent abuse and noise interaction in the work environment may cause hearing loss. (Xylene) Kidney: caused kidney effects in male rats which are not considered relevant to humans Reproductive and Developmental Toxicity : Causes foetotoxicity in animals at doses which are maternally toxic. Not expected to impair fertility.
Health Hazard	Irritating to respiratory system. Vapours may cause drowsiness and dizziness. May cause moderate irritation to skin. Repeated exposure may cause skin dryness or cracking. Harmful: may cause lung damage if swallowed. Possibility of organ or organ system damage from prolonged exposure; see Chapter 11 for details. Target organ(s): Auditory system.
Mutagenicity	Not mutagenic.
Carcinogenicity	An increased tumour incidence has been observed in experimental animals; the significance of this finding to man is unknown. (Cumene)
Basis for Assessment	Information given is based on product testing, and/or similar products, and/or components.
Acute Toxicity - Oral	Low toxicity: LD50 >2000 mg/kg , Rat Aspiration into the lungs may cause chemical pneumonitis which can be fatal.
Acute Toxicity - Dermal	Low toxicity: LD50 >2000 mg/kg , Rat
Acute Toxicity - Inhalation	Low toxicity: LC50 greater than near-saturated vapour concentration. / 4 hours, Rat High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Eye Irritation	Essentially non-irritating to eyes.
Skin Irritation	May cause moderate skin irritation (but insufficient to classify). Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis.
Respiratory Irritation	Repeated inhalation of vapours and mists is expected to cause irritation of the respiratory tract.
Skin Sensitisation	Not a skin sensitiser.

12. ECOLOGICAL INFORMATION

Persistence / Degradability	Expected to be readily biodegradable. Oxidises rapidly by photo-chemical reactions in air.
Mobility	Adsorbs to soil and has low mobility. Floats on water.
Bioaccumulative Potential	Has the potential to bioaccumulate.
Acute Toxicity - Fish	Toxic: 1 < LC/EC/IC50 <= 10 mg/l
Acute Toxicity - Algae	Toxic: 1 < LC/EC/IC50 <= 10 mg/l
Acute Toxicity - Other Organisms	Aquatic Invertebrates : Toxic: 1 < LC/EC/IC50 <= 10 mg/l

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Waste product should not be allowed to contaminate soil or water.
Container Disposal	Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums. Send to drum recoverer or metal reclaimer.
Local Legislation	Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

14. TRANSPORT INFORMATION

Transport Information	ADG UN number: 1268 Proper shipping name: PETROLEUM DISTILLATES, N.O.S.(PETROLEUM NAPHTHA) Class: 3 Packing group: III Hazchem Code: 3Y IMDG Identification number: UN 1268 Proper shipping name: PETROLEUM DISTILLATES, N.O.S. Technical name: (PETROLEUM NAPHTHA)

Class / Division: 3
Packing group: III
Marine pollutant: Yes (PETROLEUM NAPHTHA)

IATA (Country variations may apply)
UN No. : 1268
Proper shipping name : Petroleum distillates, n.o.s.
Class / Division : 3
Packing group : III

U.N. Number 1268

Proper Shipping Name PETROLEUM DISTILLATES, N.O.S.

DG Class 3

Hazchem Code 3Y

Packing Group III

EPG Number 3A1

IERG Number 14

15. REGULATORY INFORMATION

Regulatory Information The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Chemical Inventory Status
INV (CN) : Listed.
EINECS :Listed. 265-199-0
KECI (KR) : Listed. KE-31662

Other Information : 94/69/EC (21st ATP). The benzene content of this product is less than 0.1%. Nota P applies. Classification and labelling as carcinogen (R45) is not required

Poisons Schedule S5

Symbol Xn Harmful.
N Dangerous for the environment.

Hazard Category Harmful,Irritant,Dangerous for the environment

TSCA (USA) Listed.

DSL (Canada) Listed.

PICCS (Philippines) Listed.

16. OTHER INFORMATION

Uses and Restrictions	Industrial Solvent.
Revisions Highlighted	MSDS Revisions : A vertical bar (|) in the left margin indicates an amendment from the previous version.
Other Information	Version 7.

R-phrase(s)
R10 Flammable.
R20 Harmful by inhalation.
R20/21 Harmful by inhalation and in contact with skin.
R36/37/38 Irritating to eyes, respiratory system and skin.
R37 Irritating to respiratory system.
R38 Irritating to skin.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: May cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

MSDS Version Number : 7.

MSDS Distribution : The information in this document should be made available to all who may handle the product

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End of MSDS