

SAFETY DATA SHEET

1. Product and Company Identification

Company Name: Sierra Aust Pty Ltd
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Product Name: Underbody Rustproofing
Product Code: 4202, 4204, 4206
Intended Use: Automotive Bitumous Rust Proofing
Chemical Nature: Mixture

2. Hazards Identification

Hazardous Chemical according to classification by Safe Work Australia
Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail

GHS Classification: Flammable Liquid Category 3
 Aspiration Hazard Category 1



GHS Signal Word: DANGER

Hazard Statement: H226 Flammable liquid and vapour, H304 May be fatal if swallowed and enters airways
 H304 May be fatal if swallowed and enters airways
 H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements:

Preventative: P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
 P233 Keep container tightly closed.
 P240 Ground/bond container and receiving equipment.
 P241 Use explosion proof electrical/ventilation/lighting equipment
 P242 Use only non-sparking tools
 P243 Take precautionary measures against static discharge
 P280 Wear protective gloves/eye protection/face protection

Response: P301+P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician
 P303 + P361 + P353 IF ON SKIN (or hair): Take off contaminated clothing and wash before reuse.
 Rinse skin with water /shower
 P331 Do NOT induce vomiting.
 P370 + P378 In case of fire: Use foam/water spray/fog for extinction.

Storage: PP403 + P235 Store in a well ventilated place. Keep cool.
 P405 Store locked up.

Disposal: P501 Dispose of contents/container in accordance with local regulations.

3. Composition / Information on Ingredients

Ingredients Names and Proportions

Chemical Entity	Cas Number	Proportion(%)
White Spirit	8052-41-3	>60
Bitumen (Asphalt)	8052-42-4	30

4. First aid Measures

Eye Contact	<p>If this product comes in contact with the eyes: Wash out immediately 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. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</p>
Skin Contact	<p>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</p>
Inhalation	<p>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.</p>
Ingestion	<p>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.</p>

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.

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

5. Fire Fighting Measures

Suitable Extinguishing Media: Foam, water spray or fog, dry chemical powder or carbon dioxide. Do not use water in a jet

Specific Hazards arising from the Chemical:

Carbon monoxide may be evolved if incomplete combustion occurs. Will float and can be reignited on surface of water. Vapour is heavier than air, can spread along ground and distant ignition is possible.

Special protective equipment for fire fighters:

Wear full protective clothing and self contained breathing apparatus. Hazchem code 3Y

6. Accidental Release Measures

Personal Precautions:

Avoid contact with spilled or released material. Shut off leaks, if possible without personal risks. Isolate hazard area and deny entry to unnecessary or unprotected personnel. Remove all sources of ignition in the surrounding area. Take precautionary measure against static discharge. Ensure electrical continuity by bonding and earthing all equipment.

Environmental Precautions:

Use appropriate containment to avoid environmental contamination. Prevent from spreading and entering waterway 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. Ventilate contaminated area thoroughly.

Methods of cleanup: For small spills (<1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow any residues to evaporate or use an appropriate absorbent material and dispose of safely. For larger spills (>1drum), transfer by means such as a vacuum truck to a salvage tank for recovery or disposal. Do not flush residues with water. Retain as contaminated waste. Allow any residues to evaporate or use an appropriate absorbent material and dispose of safely.

7. Handling and Storage

Precautions for safe handling: Flammable product. Avoid breathing vapours. Handle and open containers with care in a well-ventilated area. Ensure that the workplace is ventilated such that the Occupational Exposure limit is not exceeded. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in contaminated areas. Electrostatic charges may be generated during transfer. Electrostatic discharge may cause fire. Ensure electrical continuity by earthing all equipment. Flameproof equipment necessary in area where chemical is being used. Vapours may accumulate in low or confined areas.

Conditions for safe storage: Store in a well ventilated area, away from sunlight, ignition sources and other sources of heat. Do not store near aerosols, strong oxidants and corrosives.

8. Exposure Controls and Personal Protection

OCCUPATIONAL EXPOSURE LIMITS (OEL) INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	white spirit	White spirits	790	Not Available	Not Available	(see Chapter 16)
Australia Exposure Standards	bitumen (petroleum)	Bitumen fumes	5 (mg/m3)	Not Available	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
white spirit	350 / 171 / 10 / 500 / 300 / 0.2 / 100(ppm)	500 / 300 / 513 / 30 / / 350 / 100 0.6(ppm)	500 / 395 / 855 / 200 / 50(ppm)	500 / 1000 / 1250 / 395(ppm)
bitumen (petroleum)	0.5 / 1.25(ppm)	4 / 0.75(ppm)	5 / 25(ppm)	125 / 25(ppm)

Ingredient	Original IDLH	Revised IDLH
white spirit	29,500(mgm3)10,000 [LEL] / 10,000(ppm)	20,000(mgm3)1,000 [LEL] / 1,100 [LEL](ppm)

Engineering Controls: Ensure that adequate ventilation is provided. Maintain air concentrations below recommended exposure standards. Avoid generating and inhaling mists and vapours. Keep containers closed when not in use.

Individual Protection Measures:

Eye and face protection: Wear safety goggles.

Skin protection: Use solvent resistant gloves, nitrile for longer term protection of PVC and neoprene for incidental splashes.

Respiratory protection: If work practices do not maintain airborne levels below the exposure standard, use appropriate respiratory protection equipment. When using respirators, select an appropriate combination of mask and filter. Select a filter for organic gases and vapours (boiling point >65°C). respirators should comply with AS1716 or an equivalent approved by a state/territory authority.

Thermal Hazards: Not applicable.

9. Physical and Chemical Properties

Appearance:	Black Viscous Liquid	Density (g/ml@15°C):	Typical 0.952
Odour:	Aromatic	Solubility (kg/m³):	Not miscible with water
Initial Boil point range:	Typical 149-194°C	Auto ignition temp (°C)	not available
Flash point:	42°C (Abel)	Vapour Density:	not available
Flammability:	Flammable	(air=1 @15°C)	
Vapour pressure:	not available	Upper/lower flammability:	0.7 – 6.5
(kPa@20°C)		or explosive limits (%)	(white spirit)

10. Stability and Reactivity

Reactivity: Stable under normal conditions of use
Chemical Stability: Stable under normal conditions of use
Possible Hazardous reactions: Stable under normal conditions of use
Conditions to avoid: Avoid heat, sparks, open flames and other ignition sources
Incompatible materials: Strong oxidizing agents.
Hazardous Decomposition products: Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids, 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

Inhaled

Acute effects from inhalation of high concentrations of vapour are pulmonary irritation, including coughing, with nausea; central nervous system depression - characterised by headache and dizziness, increased reaction time, fatigue and loss of co-ordination

If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death.

Ingestion

Accidental ingestion of the material may be damaging to the health of the individual.

Ingestion may result in nausea, pain, vomiting. Vomit entering the lungs by aspiration may cause potentially lethal chemical pneumonitis.

Skin Contact

Limited evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.

Eye

Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.

Skin Contact

Repeated or prolonged exposure to mixed hydrocarbons may produce narcosis with dizziness, weakness, irritability, concentration and/or memory loss, tremor in the fingers and tongue, vertigo, olfactory disorders, constriction of visual field, paraesthesias of the extremities, weight loss and anaemia and degenerative changes in the liver and kidney. Chronic exposure by petroleum workers, to the lighter hydrocarbons, has been associated with visual disturbances, damage to the central nervous system, peripheral neuropathies (including numbness and paraesthesias), psychological and neurophysiological deficits, bone marrow toxicities (including hypoplasia possibly due to benzene) and hepatic and renal involvement. Chronic dermal exposure to petroleum hydrocarbons may result in defatting which produces localised dermatoses. Surface cracking and erosion may also increase susceptibility to infection by microorganisms. One epidemiological study of petroleum refinery workers has reported elevations in standard mortality ratios for skin cancer along with a dose-response relationship indicating an association between routine workplace exposure to petroleum or one of its constituents and skin cancer, particularly melanoma. Other studies have been unable to confirm this finding.

Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes.

Sierra Underbody	Toxicity	Irritation
	Not available	Not Available

White Spirit	Toxicity	Irritation
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	Inhalation (rat) LC50: >5500 mg/m ³ /4hr moderate Oral (rat) LD50: >5000mg/kg	Eye (human): 470 ppm/15m Eye (rabbit): 500 mg/24hr moderate
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Bitumen	Toxicity	Irritation
	Not available	Not Available

White Spirit

This product contains benzene which is known to cause acute myeloid leukaemia and n-hexane which has been shown to metabolize to compounds which are neuropathic.

This product contains toluene. There are indications from animal studies that prolonged exposure to high concentrations of toluene may lead to hearing loss.

This product contains ethyl benzene and naphthalene from which there is evidence of tumours in rodents

Carcinogenicity: Inhalation exposure to mice causes liver tumours, which are not considered relevant to humans. Inhalation exposure to rats causes kidney tumours which are not considered relevant to humans.

Mutagenicity: There is a large database of mutagenicity studies on gasoline and gasoline blending streams, which use a wide variety of endpoints and give predominantly negative results. All in vivo studies in animals and recent studies in exposed humans (e.g. petrol service station attendants) have shown negative results in mutagenicity assays.
white spirit, as CAS RN 8052-41-3

Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production.

12. Ecological Information

Toxicity

DO NOT discharge into sewer or waterways.

[The volatile components of this product are readily biodegradable under aerobic conditions. They will partition largely to the atmosphere but some will partition to soil and sediment where lowered bioavailability would reduce uptake by organisms. Research also indicates that the volatile components have a moderate potential for bioaccumulation: however bioconcentration would be expected to be low. They are expected to exhibit a moderate toxicity to aquatic organisms. The non-volatile components of this product are not considered to be biodegradable and will persist for years in the environment. However, they are not considered to be toxic to the environment and will not bioaccumulate

Persistence and degradability

Not available

Bioaccumulative potential

Not available.

Mobility in soil

Not available

13 Disposal Considerations

Ensure waste disposal conforms to local waste disposal regulations.

14. Transport Information

UN number:	1263
Proper shipping name:	Paint
Australian Dangerous Goods class:	3
Australian Dangerous Goods packing group:	III
Hazchem code:	●3Y

15. Regulatory Information

White Spirits is found on the following;

"International Maritime Dangerous Goods Requirements (IMDG Code)", "International Council of Chemical Associations (ICCA) – High Production Volume List", "Australia Exposure Standards", "International Maritime Dangerous Goods Requirements (IMDG Code) – Substance Index", "International Maritime Dangerous Goods Requirements (IMDG Code) - Marine Pollutants", "FisherTransport Information", "Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions", "IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO", "United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)", "IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances", "Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes", "Australia Inventory of Chemical Substances (AICS)", "OECD List of High Production Volume (HPV) Chemicals", "International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs", "Belgium Federal Public Service Mobility and Transport, Regulations concerning the International Carriage of Dangerous Goods by Rail - Table A: Dangerous Goods List - RID 2013 (Dutch)", "International Chemical Secretariat (ChemSec) SIN List (*Substitute It Now!)", "International Numbering System for Food Additives", "Sigma-AldrichTransport Information", "Australia High Volume Industrial Chemical List (HVICL)", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)", "OECD Existing Chemicals Database", "GESAMP/EHS Composite List - GESAMP Hazard

Profiles", "Australia Dangerous Goods Code (ADG Code) - Dangerous Goods List", "Australia Hazardous Substances Information System - Consolidated Lists", "International Air Transport Association (IATA) Dangerous Goods Regulations", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Listed medicines", "IMO IBC Code Chapter 17: Summary of minimum requirements", "Acros Transport Information", "International Fragrance Association (IFRA) Survey: Transparency List"

Bitumen is found on the following;

"Australia Exposure Standards", "OECD List of High Production Volume (HPV) Chemicals", "Australia Inventory of Chemical Substances (AICS)", "International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Hazardous Substances Information System - Consolidated Lists"

16. Other Information

This SDS contains only safety related information. For other information see product literature.

Every endeavor has been made to ensure that the information contained in this publication is reliable and offered in good faith. It is meant to describe the safety requirements of our products and should not be construed as guaranteeing specific properties. Customers are encouraged to conduct their own tests as end user suitability of the product for particular uses is beyond our control. The information is not intended as an inducement to bargain and no warranty expressed or implied is made as to its accuracy, reliability or completeness. Sierra (Aust) Pty Ltd accepts no liability for loss, injury or damage arising from reliance upon the information contained in this data sheet except in conjunction with the proper use of the product to which it refers. Due care should be taken that the use and disposal of this product is in compliance with appropriate Federal, State and Local Government regulations.

