Safety Data Sheet

Hazardous Substance, Dangerous Goods

SECTION 1: IDENTIFICATION OF MATERIAL AND SUPPLIER

Product name:	Sceney's Methylated Spirits 100%
Synonyms:	Industrial Methylated Spirits 100%
Recommended use:	Solvent
Supplier:	Sceneys
ABN:	37 665 228 222
Street Address:	34 Macquarie Drive Thomastown VIC 3074 Australia
Telephone:	(03) 9311 7477 (Mon-Fri, 9am-3pm, AEST)
Facsimile:	(03) 9312 6911

SECTION 2: HAZARD IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE: Classified as **Hazardous** according to the criteria of the Australian Safety and Compensation Council ASCC (formerly NOHSC) Approved Criteria For Classifying Hazardous Substances [NOHSC:1008] 3rd Edition.
IMS 100 is classified as **Dangerous** Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

GHS Classification:

Flammable Liquid Category 2
Eye Irritation Category 2A

GHS LABEL ELEMENTS

Symbol (s)



Signal Word: Danger

Hazard Statements:
H225: Highly flammable liquid and vapour.
H319: Causes serious eye irritation

PRECAUTIONARY STATEMENT(s)

Prevention
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/ventilating/lighting equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/ face protection.
P281: Use personal protective equipment as required.

Response
P370 +P378: In case of fire: Use appropriate media for extinction.
P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P312: Call a POISON CENTRE or doctor/physician if you feel unwell.
P332+P313: If Skin irritation occurs. Get medical advice/attention.
P322: Specific measures (see details on this label).
P321: Specific treatment (see details on label).
P363: Wash contaminated clothing before reuse.
P362: Take of contaminated clothing and wash before reuse.

Disposal
P501: Dispose of contents and container to appropriate waste site of reclaimer in accordance with local and national regulations.

Other Hazards which do not result in classification
None

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Classification of components according to GHS

Chemical name	CAS	Conc.
Ethanol	64-17-5	99-100 %W
Methyl Isobutyl Ketone	108-10-1	<0.5% W

SECTION 4: FIRST AID MEASURES

Information:
Consult a physician. Show this safety data sheet to the doctor in attendance

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician..

Eyes: Immediately flush eyes with large amounts of water for at least 15minutes while holding eyelids open. Transport to the nearest medical facility for additional treatment.

Skin: Remove contaminated clothing, wash off with plenty of water and soap. Consult a physician if any symptoms arise.

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

First Aid Facilities: Eye wash fountains and safety showers should be available for emergency use.

Advice to Doctor:	The most important known symptoms and effects are described in the labelling and in section 11
Most important symptoms and effects acute and delayed	No data available
Immediate medical attention, special treatment	No data available

SECTION 5: FIRE FIGHTING MEASURES

Specific Hazards:	Liquid and vapour are highly flammable. Severe fire hazard when exposed to heat, flame and/or oxidisers. 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). Combustion products include: , carbon dioxide (CO2) , other pyrolysis products typical of burning organic material.
Suitable extinguishing media:	Alcohol stable foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide. Water spray or fog - Large fires only.
Unsuitable extinguishing media	No data available
Special protective precautions and equipment for fire fighters:	Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water course. Consider evacuation (or protect in place). Fight fire from a safe distance, with adequate cover. If safe, switch off electrical equipment until vapour fire hazard removed. Use water delivered as a fine spray to control the 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.
Other advice	. No data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see chapter 8 of this Safety Data Sheet.

Minor spills: Remove all ignition sources.
Clean up all spills immediately.

Avoid breathing vapours and contact with skin and eyes.
Control personal contact with the substance, 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.
Consider evacuation (or protect in place).
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.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:

Containers, even those that have been emptied, may contain explosive vapours.
Do NOT cut, drill, grind, weld or perform similar operations on or near containers.
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.
DO NOT enter confined spaces until atmosphere has been checked.
Avoid smoking, naked lights, heat or ignition sources.
When handling, **DO NOT** eat, drink or smoke.
Vapour may ignite on pumping or pouring due to static electricity.
DO NOT use plastic buckets.
Earth and secure metal containers when dispensing or pouring product.
Use spark-free tools when handling.
Avoid contact with incompatible materials.
Keep containers securely sealed.
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 storage and handling recommendations contained within this SDS.
Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.

Other information:

Store in original containers in approved flame-proof area.
No smoking, naked lights, heat or ignition sources.
DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
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 storage and handling recommendations contained within this SDS.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits

Material	Type	ppm	mg/m3
Ethanol	TWA	1,000ppm	1,880mg/m3
Methyl Isobutyl Ketone	TWA	50 ppm	205mg/m3

Biological Exposure Index (BEI):

No biological limit allocated.

ENGINEERING CONTROLS

Ventilation: Provide sufficient ventilation to keep airborne levels below the exposure limits. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flameproof exhaust ventilation system is required. Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS/NZS 2430.3.1:1997 : Classification of hazardous areas - Examples of area classification - General, for further information concerning ventilation requirements.

Appropriate 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. Use sealed systems as far as possible. Firewater monitors and deluge systems are recommended. Eye washes and showers for emergency use.

PERSONAL PROTECTION

Hand Protection Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739, AS/NZS:2161) made from the following materials may provide suitable chemical protection: Longer term protection: Viton. Incidental contact/Splash protection: Nitrile rubber. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. 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.

Skin Protection: Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Eye Protection: Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications..

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 vapors [Type A boiling point > 65°C (149°F)] meeting EN14387. Where respiratory protective equipment is required, use a full-face mask. Where air-filtering respirators are unsuitable (e.g., airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.
Body protection:	Chemical resistant gloves/gauntlets, boots, and apron. Where risk of splashing or in spillage clean up, use chemical resistant one-piece overall with integral hood. Wear antistatic and flame retardant clothing.
Smoking & Other Dusts	Smoking must be prohibited in all areas where this product is used - see safety information on flammability.
Thermal Hazards	Not Applicable
	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 exposure measurement methods are given below or contact the supplier.
	Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapor.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

AppearanceClear highly flammable liquid with characteristic odour; miscible with water.
Odor No data available
Melting Point -117°C
Boiling Point 78°C
Solubility in Water Completely Soluble
Specific Gravity (H2O=1) at 15°C 0.790 – 0.800 kg/m3
pH Value No data available.
Vapour Pressure 5.9 kPa at 20°C
Vapour Density No data available
Flash Point 14°C
Ignition Temperature No data available
Flammable Limits LEL Upper explosion limit 19% (V)
Flammable Limits UEL
Kinetic viscosity Lower explosion limit 3.3% (V)
Auto ignition temperature 422°C

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions.
Incompatible Materials:	Avoid oxidising agents, acids, acid chlorides, acid anhydrides, chloroformates.
Conditions to avoid:	Heat, sparks, flame, and build-up of static electricity.
Hazardous Decomposition Products:	Thermal decomposition may result in the release of toxic and/or irritating fumes including carbon monoxide and carbon dioxide.
Hazardous Reactions:	Hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Inhaled:
Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.
Limited evidence or practical experience suggests that the material may produce irritation of the respiratory system, in a significant number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical
insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system.
The most common signs of inhalation overexposure to ethanol, in animals, include ataxia, incoordination and drowsiness for those surviving narcosis. The narcotic dose for rats, after 2 hours of exposure, is 19260 ppm.
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

Ingestion:
Accidental ingestion of the material may be damaging to the health of the individual.
Ingestion of ethanol may produce nausea, vomiting, gastrointestinal bleeding, abdominal pain and diarrhoea. Systemic effects:

Blood concentration:	Effects:
<1.5 g/l	Mild: Impaired visual acuity, coordination and reaction time, emotional lability
1.5-3.0 g/l	Moderate: Slurred speech, confusion, ataxia, emotional lability, perceptual and sensation disturbances possible blackout spells, and incoordination with impaired objective performance in standardised tests. Possible diplopia, flushing, tachycardia, sweating and incontinence. Bradypnoea may occur early and tachypnoea may develop in cases of metabollic acidosis, hypoglycaemia and hypokalaemia. CNS depression may progress to coma.
3-5 g/l	Severe: Cold clammy skin, hypothermia and hypotension. Atrial fibrillation and atrioventricular block have been reported. Respiratory depression may occur, respiratory failure may follow serious intoxication, aspiration of vomitus may result in pneumonitis and pulmonary oedema. Convulsions due to severe hypoglycaemia may also occur Acute hepatitis may develop.

Skin Contact:

The material may produce moderate skin irritation; limited evidence or practical experience suggests, that the material either:
produces moderate inflammation of the skin in a substantial number of individuals following direct contact and/or produces significant, but moderate, 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.
Open cuts, abraded or irritated skin should not be exposed to this material
Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Eye:
Evidence exists, or practical experience predicts, that the material may cause severe eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Eye contact may cause significant inflammation with pain. Corneal

injury may occur; permanent impairment of vision may result unless treatment is prompt and adequate. Repeated or prolonged exposure to irritants may cause inflammation characterised by a temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.

Chronic
Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.
Long-term exposure to ethanol may result in progressive liver damage with fibrosis or may exacerbate liver injury caused by other agents. Repeated ingestion of ethanol by pregnant women may adversely affect the central nervous system of the developing foetus, producing effects collectively described as foetal alcohol syndrome. These include mental and physical retardation, learning disturbances, motor and language deficiency, behavioural disorders and reduced head size. Consumption of ethanol (in alcoholic beverages) may be linked to the development of Type I hypersensitivities in a small number of individuals. Symptoms, which may appear immediately after consumption, include conjunctivitis, angioedema, dyspnoea, and urticarial rashes. The causative agent may be acetic acid, a metabolite

	TOXICITY	IRRITATION
ethanol	Dermal (rabbit) LD50: 17100 mg/kg[1]	Eye (rabbit): 500 mg SEVERE
	Inhalation (rat) LC50: 63926.976 mg/l/4h[2]	Eye (rabbit):100mg/24hr-moderate
	Oral (rat) LD50: 7060 mg/kg[2]	Skin (rabbit):20 mg/24hr-moderate
		Skin (rabbit):400 mg (open)-mild
methyl isobutyl ketone	TOXICITY	IRRITATION
	Oral (rat) LD50: 2080 mg/kg[2]	Eye (human): 200 ppm/15m

Acute Toxicity	⊘	Carcinogenicity	⊘
Skin Irritation/Corrosion	⊘	Reproductivity	⊘
Serious Eye Damage/Irritation	✔	STOT - Single Exposure	⊘
Respiratory or Skin sensitisation	⊘	STOT - Repeated Exposure	⊘

SECTION 12: ECOLOGICAL INFORMATION

	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
ethanol	LC50	96	Fish	42mg/L	4
	EC50	48	Crustacea	2mg/L	4
	EC50	96	Algae or other aquatic plants	17.921mg/L	4
	NOEC	2016	Fish	0.000375mg/L	4
methyl isobutyl ketone	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>179mg/L	2
	EC50	48	Crustacea	=170mg/L	1
	EC50	96	Algae or other aquatic plants	=400mg/L	1
	NOEC	504	Crustacea	30mg/L	2

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
ethanol	LOW (Half-life = 2.17 days)	LOW (Half-life = 5.08 days)
methyl isobutyl ketone	HIGH (Half-life = 7001 days)	LOW (Half-life = 1.9 days)

Bioaccumulative potential

Ingredient	Bioaccumulation
ethanol	LOW (LogKOW = -0.31)
methyl isobutyl ketone	LOW (LogKOW = 1.31)

Mobility in soil

Ingredient	Mobility
ethanol	HIGH (KOC = 1)
methyl isobutyl ketone	LOW (KOC = 10.91)

SECTION 13: DIPOSAL CONSIDERATIONS

Waste treatment methods
Product / Packaging
disposal
Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.
A Hierarchy of Controls seems to be common - the user should investigate:
Reduction
Reuse
Recycling
Disposal (if all else fails)
This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

- **DO NOT** allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no
  suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration
  in a licensed apparatus (after admixture with suitable combustible material).

  Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed

SECTION 14: TRANSPORT INFORMATION

Proper Shipping Name:	Ethanol (Ethyl Alcohol)
UN number:	1170
DG Class:	3 Flammable
Subsidiary Risk 1:	None Allocated
Packaging Group:	II
HAZCHEM code:	·2YE
Marine Pollutant:	No

Special Precautions for User:	Refer to incompatibilities in section 7 and stability and reactivity information in section 10.
ADDITIONAL TRANSPORT REQUIREMENTS:	Nil

SECTION 15: REGULATORY INFORMATION

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

Chemical inventory status
Listed in AICS, DLS, INV (CN), ENCS (JP), TSCA, EINECS, KECI (KR) and PICCS (PH)

ADDITIONAL INFORMATION
Australian Standards References:

AS 1020	The Control of undesirable static electricity.
AS 1076	Code of Practice for selection, installation and maintenance of electrical apparatus and associated equipment for use in explosive atmospheres (other than mining applications) – Parts 1 to 13.
AS/NZS 1336	Recommended Practices for Occupational Eye Protection
AS/NZS 1715	Selection, Use and Maintenance of Respiratory Protective Devices
AS/NZS 1716	Respiratory Protective Devices
AS 1940	The Storage and Handling of Flammable and Combustible Liquids.
AS 2161	Industrial Safety Gloves and Mittens (excluding electrical and medical gloves)
AS 2380	Electrical equipment for explosive atmospheres – Explosion Protection Techniques (Parts 1 to 9).
AS 3000	Electrical installations (known as the Australian/New Zealand Wiring Rules).

Other References:

NOHSC:2011(2003)	National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition, April 2003, National Occupational Health and Safety Commission.
NOHSC; 2012 (1994)	National Code of Practice for the Labeling of Workplace Substances, March 1994, Australian Government Publishing Service, Canberra.
NES	National Occupational Exposure Standards for workplace Atmospheric Contaminants (NES) Australian Safety and Compensation Council, ASCC (Formerly NOHSC) 1995 as amended.

Material Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since the manufacturer/supplier cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

END OF SDS