SAFETY DATA SHEET

INDUSTRIAL METHYLATED SPIRIT

REVISION No: 1.0.H

ISSUE DATE: 09-Nov-2016

1. IDENTIFICATION OF THE MATERIAL AND MANUFACTURER / SUPPLIER

Product Name :	INDUSTRIAL METHYLATED SPRIT
Other Names:	IMS95, DAA
Recommended Use of the chemical and restrictions on use	Methylated sprits, fuel, solvents
Manufacturer / Supplier:	AIM Group Pty Ltd
ABN:	15 069 029 232
Address:	171 Thorneside Rd, Thorneside Qld 4158
Telephone	07 3207 1033
Email:	info@aimgroup.com.au

Emergency Telephone Number: **000 1800 033 111**

2. HAZARDS IDENTIFICATION

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail;
DANGEROUS GOODS
This material is hazardous according to criteria of Safe Work Australia; **HAZARDOUS SUBSTANCE**.

Classification of the hazardous material (s):
Ethanol: Flammable liquids (category 2)
Eye irritation (category 2A)
MIBK: Flammable liquids (category 2)
Acute toxicity (category 4)
Eye irritation (category 2)
Specific target organ toxicity – single exposure (category 3)

Label Elements:

Signal word: **Danger**

Hazard statement (s):
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 may cause respiratory irritation.
H336 May cause dizziness or drowsiness.
H351 suspected of causing cancer.
Precautionary statement (s):
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground / bond container and receiving equipment.
P241 Use explosion-proof electrical / ventilating /light equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P273 Avoid release to the environment.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
Response:
P303+361+353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so.
P370+378 In case if fire: Use alcohol resistant foam or normal protein foam for extinction.
Storage:
P403+P235 Store in a well-ventilated place. Keep cool.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Name	CAS No:	Proportion:
Ethanol	64-17-5	<99.7%
Methyl Isobutyl Ketone (MIBK)	108-10-1	0.25%
Water	732-18-5	To make up to 100%

4. FIRST AID MEASURES

For advice contact a Poisons Information Centre (Australia 13 11 26) or a doctor.

Eye contact:
Immediately flush the eye with lukewarm, gentle flowing water for 20 minutes or until the product is removed, whilst holding the eye open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Skin Contact:
Gently blot away excess liquid. Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until chemical is removed.

Inhaled:
If symptoms of poisoning become evident, contact a Poisons Information Centre **13 11 26**, or call a doctor immediately. Remove source of contamination or move victim to fresh air. If breathing difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

Ingested:
DO NOT induce vomiting. If vomiting occurs, have victim lean forward to prevent aspiration. Wash mouth with water, seek medical advice or contact a Poisons Information Centre **13 11 26**. Never give anything by mouth to an unconscious individual.

Indication of immediate medical attention and special treatment needed:
Treat Symptomatically. If intoxication or narcosis is present, treat as for excess consumption of alcoholic drink. Care should be taken during vomiting to prevent aspiration of the return of flow. If respiration is depressed, assisted respiration may be necessary.

5. FIRE FIGHTING MEASURES

HAZCHEM CODE: •2YE

Suitable extinguishing equipment:
Suitable extinguishing media are carbon dioxide, dry chemical, and foam. Alcohol resistant foam is the preferred firefighting medium however, if it is not available, normal foam can be used. Try to contain spills, minimise spillage entering drains or water courses.

Specific hazards arising from the chemical:
This product is classified as flammable. There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Fire Fighters should take care and appropriate precautions. Any explosion will likely spread the fire to surrounding material. Water spray may be used to cool drums involved in a fire, reducing the chances of an explosion. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances. May evolve toxic gasses (carbon monoxide and or carbon dioxide, hydrocarbons). Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Special Protective equipment and precautions for fire fighters:
Fire Fighters should wear self-contained breathing apparatus (SCBA) and protective firefighting clothing or chemical splash suit.
Highly flammable liquid. May form flammable mixtures with air. Burns with colourless flame. Vapour is heavier than air & may travel along the ground; distant ignition and flash back are possible. Avoid pooling on surfaces. Avoid run off to sewers & drains (may cause explosions).Fire Fighters should wear self-contained breathing apparatus (SCBA) and protective firefighting clothing or chemical splash suit

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures / Environmental Precautions:
Prevent spillage from entering drains or water ways as aquatic life may be threatened and environmental damage may result. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. Wear full protective clothing including eye/face protection. All skin areas should be covered. See section 8. If there is a significant chance that vapours or mists are likely to build up in the clean-up area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian standard mention in exposure controls and personal protection. Otherwise not normally necessary.

Methods and materials for containment and cleaning:
Stop leak if safe to do so and contain spill. Absorb into sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dam to stop material spreading or going into drains or waterways. Avoid using sawdust or other combustible material. Any electrical equipment should be non-sparking. Any equipment capable of building an electrostatic charge should be electrically grounded. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage and dispose of in accordance with local authorities. Recycle containers wherever possible after careful cleaning. After spill, wash area with water, preventing run off from entering drains. If a significant quantity of material enters drain system, notify emergency services. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

7. HANDLING AND STORAGE

Precautions for safe handling:
Highly flammable product. Avoid breathing vapours. Keep exposure to the product to a minimum and minimise the quantities kept in work areas. Check 'Exposure controls and Personal Protection' of this SDS for details of personal protective measures and make sure that those measures are followed. The measures detailed below under 'Storage' should be followed during handling in order to minimise risk to persons using the product in the workplace. Avoid contact or contamination of product with incompatible materials listed under 'stability and reactivity' Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities:
Store in a cool, dry, well ventilated area, away from heat or direct sunlight. Keep containers sealed, adequately labelled and protected from physical damaged. Check regularly for leaks and spills. Remove from oxidising agents, acids, alkalis and foodstuffs, out of the reach of children. Large storage areas should have appropriate fire protection.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control Parameters – exposure standards, biological monitoring:

Material	TWA ppm	TWA mg/m3	STEL ppm	STEL mg/m3
Ethanol	1000	1800	-	-
Methyl Isobutyl Ketone (MIBK)	50	205	75	307

Appropriate engineering controls:
DO NOT Inhale vapours. Use in well ventilated areas. In poorly ventilated areas, mechanical explosion proof extraction ventilation is recommended. Ensure compliance with applicable exposure limits. Flammable / explosive vapours may accumulate in poorly ventilated areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour level below the recommended exposure standard. Provide an emergency eye wash fountain and quick drench shower in immediate work area. No smoking eating or drinking in work area.

Personal protective equipment (PPE):
Wear SPLASH PROOF GOGGLES and NITRILE or NEOPRENE GLOVES. When using large quantities or where heavy contamination is likely wear COVERALLS. Where an inhalation risk exists, wear a TYPE A (Organic Vapour) RESPIRATOR.
At high levels wear SELF CONTAINED BREATHING APPARATUS (SCBA) or an AIR-LINE RESPIRATOR.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear liquid, free of any foreign matter
Odour:	Characteristic
pH:	No data available
Melting point / freezing point (°C):	-117˚C (Ethanol) -84.7 ˚C (MIBK)
Boiling point and boiling range (°C):	78˚C (Ethanol) 118˚ (MIBK
Flash point (°C):	14 ˚C closed cup (Ethanol) 14 ˚C closed cup (MIBK)
Evaporation rate:	No data available
Flammability / explosive limits:	19.0% UEL 3.3% LEL (Ethanol) 7.5%UEL 1.4%LEL (MIBK)

Vapour pressure:	5.9kPa@20˚C (Ethanol) 2.1kPa@20˚C (MIBK)
Auto-ignition temperature:	422 ˚C (Ethanol) 449 ˚C (MIBK)
Specific gravity:	0.79 -0.81g/mg@20˚C (Ethanol)
Solubility (ise):	Completely Soluble in water

10. STABILITY AND REACTIVITY

Reactivity:
Will react with strong oxidising agents, acids, strong alkalis, heat, ignition sources. Sparks, flames and build-up of static electricity.

Chemical Stability:
Product is stable under direct conditions of use, storage and temperature.

Possibility of hazardous reactions:
Vapours may from explosive mixture with air.

Conditions to avoid:
Ignition Sources, static discharge, shock or vibration, heat, flames and sparks. Extreme temperature and direct sunlight. Do not cut, weld braze, solder, drill or grind. Do not allow vapour to accumulate in low or confined areas. Keep away from incompatible materials.

Incompatible Materials:
Incompatible with oxidising agents (e.g. hypochlorite's, peroxides), acids (sulphuric acid), strong alkalis (e.g. Hydroxides), Heat and ignition sources.

Hazardous Decomposition Products:
Combustion forms carbon dioxide and in incomplete, carbon monoxide and smoke. Water is also formed. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgement and unconsciousness followed by coma and death.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:
Low to moderate toxicity – irritant. This product has the potential to cause adverse health effects with chronic over exposure. Use safe work practices to avoid eye or skin contact and over exposure via inhalation. Chronic ingestion may result in cirrhosis of the liver. Over exposure may cause central nervous system depression.

Eye contact:
This product is an eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage. No data for health effects associated with long term eye exposure.

Skin Contact:
Available data indicates that this product is not harmful. It should present no hazards in normal use. However product may be irritating bus is unlikely to cause anything more than mild transient discomfort. No data for health effects associated with long term skin exposure.

Ingestion:
Significant oral exposure is considered to be unlikely. However, this product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but all should disappear once exopause has ceased. No data for health effects associated with long term inhalation.

Inhalation:
Available data shows that this product is harmful. But symptoms are not available. In addition product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort. No data for health effects associated with long term inhalation.

Toxicity and irritation:

Ethanol:	LC50 (Inhalation): 2000ppm/10 hours (rat)	**MIBK:**	LC50 (Inhalation): 23300mg/m3 (rat)
	LD50 (Ingestion): 3450mg/kg (mouse)		LD50 (Skin) : >20mL/kg (rabbit)
			LD50 (Ingestion): 1600mg/kg (guinea pig)

12. ECOLOGICAL INFORMATION

Eco-toxicity:

Ethanol:	LC50 / 96 hr >10,000mg/L rainbow trout	**MIBK:**	LC0 / 48 hr 480mg/L Leuciscus idus melanotus
	LC50 / 96 hr > 13,40mg/L fathead minnow >13,40mg/l		EC50 / 24 hr 1,550 – 3,623mg/L water flea

	Growth inhibition /96 hr 1,000mg/L fresh water algae		EC50 / 48 hr 980 – 2,000mg/L green algae
Persistence and degradability:			
Ethanol:	Biodegradion is expected.	**MIBK:**	Biotic/Aerobic – Exposure time 7 d
Bio-accumulative potential:			
Ethanol:	No bioaccumulation is to be expected	**MIBK:**	No data available
Mobility in soil:			
Ethanol:	No data available	**MIBK:**	No data available
Other adverse effects:			
Ethanol:	No data available.	**MIBK:**	No data available

13. DISPOSAL CONSIDERATIONS

Waste Disposal:
Refer to waste management authority. Dispose of material through a licensed waste contractor. Decontamination and destruction of containers should be considered.

Legislation:
Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG) for transport by Road and Rail, Maritime Dangerous Goods Code (IMDG) for transport by Sea; and by the Air Transport Association (IATA): **DANGEROUS GOODS**

UN Number:	1170
Proper shipping name:	Ethanol
Transport hazard class(es):	3
Packing group:	II
Environmental hazards:	Prevent contamination of drains and waterways.
Special precautions during transport:	Do not transport with chemicals of class; 1 (explosives), 2.1/2.3 (flammable / toxic gasses), 4.2 (spontaneously combustibles), 5.1 (oxidising agents), 5.2 (organic peroxides), 6 (toxics), 7 (radioactive) and foodstuffs.
Hazchem code:	•**2YE**

15. REGULATORY INFORMATION

AICS: All chemicals listed on the Australian Inventory of Chemical Substances (AICS)

Poisons schedule number: None Allocated

16. ANY OTHER RELEVANT INFORMATION

Information contained in this SDS was obtained from sources which we believe are reliable and is offered in good faith for the benefit of the user. However, the information is provided without any representation or warranty, expressed or implied. We do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, transport, storage, use or disposal of the product.

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