ASCC LTD
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FOR FURTHER INFORMATION, PLEASE REFER TO THE SDS FOLLOWING

Issue: December 18

PRODUCT:	SDA-3A
Other Names:	Ethanol solution, Denatured alcohol
Uses:	Industrial solvent
Signal Word:	Danger

UN No.	1170
Dangerous Goods Class	3
Subsidiary Risk	None
Pack Group	II
Hazchem	2YE

Hazardous Nature:	This product is classified as hazardous under HSNO criteria
Hazardous Classification:	3.1B, 6.1E (oral), 6.4A, 6.8B, 6.9B
HSNO Approval Number:	HSR002553
Exposure Standards:	TWA: Ethanol: 1,880 mg/m^3 (1,000 ppm); Methanol: 262 mg/m^3 (200 ppm): STEL: Methanol: 328 mg/m^3 (250 ppm);

Physical Characteristics (Typical) — Section 9 of SDS

Appearance	Clear, colourless liquid
Boiling Point/ Range (°C):	78
Flash Point (°C):	13
Density (g/mL @ 15°C):	0.79
Chemical Stability:	Stable at room temperature and pressure.

Product Ingredients — Section 3 of SDS

Ethyl alcohol	64-17-5	>90%
Methyl alcohol	67-56-1	<2%
Water	7732-18-5	Balance

For further ingredients information, please refer to the full SDS.

GHS Pictograms — Section 2 of SDS

For further risk and safety information, please refer to the full SDS.

DEFINITIONS

Dangerous Goods	Products that are classified as Dangerous for Storage and Transport: these products are allocated a UN No., with accompanying Class, Pack Group, and Sub. Risk, if required. Products that do not have a specific description under the code, but have low flash points, or such, must be classified under their most significant risk, eg. Flammable Goods N.O.S. (Not otherwise specified), UN 1993. Products not classed as Dangerous Goods are designated as not regulated for transport or N/R (non-regulated).
Hazardous Substance	Products are considered to be Hazardous if they pose an intrinsic risk to human or environmental health, such as mutagens (able to change DNA), teratogens (able to result in birth defects), carcinogens (able to generate cell abnormalities), etc. Materials classified with risks such as potential for misuse, like flammability, or explosions when heated and ignited, may be both classed as Dangerous Goods and Hazardous Substances.

SUMMARY INFORMATION ONLY

1. IDENTIFICATION

Product Name:	**SDA-3A**
Other Names:	Ethanol solution, Denatured alcohol
Chemical Family:	Alcohols
Recommended Use:	Industrial solvent
Supplier:	ASCC Limited
Street Address:	112A Bush Road, Rosedale, Auckland, New Zealand
Telephone:	(09) 966 2447
Emergency phone:	**0800 243 622 (24 hours)**
	+64 4 917 9888 (Outside NZ)
National Poisons Centre:	0800 764 766

2. HAZARDS IDENTIFICATION

Hazardous Nature

This product is classified as hazardous under HSNO criteria

Hazardous Classification

3.1B, 6.1E (oral), 6.4A, 6.8B, 6.9B

GHS Pictograms

Signal Word Danger

Dangerous Goods Classification 3

Hazard Statements

H225: Highly flammable liquid and vapour

H303: May be harmful if swallowed

H320: Causes eye irritation

H361: Suspected of damaging fertility or the unborn child

H373: May cause damage to organs through prolonged or repeated exposure

Precautionary Statements

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

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.

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P264: Wash thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P281: Use personal protective equipment as required.

Response Statements

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

P337+P313: If eye irritation persists get medical advice/attention.

P308+P313: If exposed or concerned: Get medical advice/attention.

P312: Call a POISON CENTER/ doctor/…/if you feel unwell.

P370+P376: In case of fire: Stop leak if safe to do so.

Storage Statements

P403+P235: Store in a well ventilated place. Keep cool.

P405: Store locked up.

Disposal Statements

P501: Dispose of contents, or container in accordance with local/regional/national/international regulation.

3. COMPOSITION: Information on Ingredients

Chemical Ingredient	CAS No.	Proportion (%v/v)
Ethyl alcohol	64-17-5	>90
Methyl alcohol	67-56-1	<2
Water	7732-18-5	Balance

4. FIRST AID MEASURES

For advice, contact National Poisons Centre (Phone New Zealand: 0800 764 766) or a doctor.

Ingestion

If swallowed, do not induce vomiting. Give a glass of water to drink, if conscious. Never give anything by mouth to an unconscious person. Begin artificial respiration if the victim is not breathing. Use mouth to nose rather than mouth to mouth. Seek medical attention.

Eye Contact

Hold eyelids apart and flush the eye with running water for at least 15 minutes. Seek medical attention if irritation persists

Skin/Hair Contact

If skin or hair contact occurs, wash with large amounts of running water. Seek medical attention if any irritation occurs.

Inhalation

Move the victim to fresh air and keep at rest in a position comfortable for breathing. Begin artificial respiration if breathing has stopped. Seek medical attention

First Aid facilities

Provide eye baths and safety showers.

Medical Attention

Treat according to symptoms. Avoid gastric lavage: risk of aspiration of product to the lungs with the potential to cause chemical pneumonitis.

5. FIRE FIGHTING MEASURES

Shut off product that may 'fuel' a fire if safe to do so. Allow trained personnel to attend a fire in progress, providing firefighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable extinguishing media

Alcohol resistant foam, water spray or fog. On small fires may use dry chemical powder, carbon dioxide, sand or earth. Keep adjacent containers cool by spraying with water. Do not use water jet.

Hazards from combustion products

Carbon dioxide, carbon monoxide, hydrocarbons.

Specific Hazards

Highly flammable liquid and vapour. . Vapours may form explosive mixtures with air.

Precautions for fire fighters and special protective equipment

Full protective clothing and self contained breathing apparatus

Hazchem Code: 2YE

6. ACCIDENTAL RELEASE MEASURES

Accidental Release Controls

Highly flammable liquid and vapour. Avoid contact with spilt material. Prevent any vapours from building up in confined areas. Vapours heavier than air and can spread across the ground.

Emergency Procedures

Prevent material from escaping to drains and waterways. Contain leaking packaging in a containment drum. Prevent vapours from building up in confined areas. Ensure that drain valves are closed at all times. Clean up and report spills immediately.

Methods and materials for containment

Major Land Spill

- Eliminate sources of ignition
- Warn occupants of downwind areas of possible fire and explosion hazard
- Prevent product from entering sewers, watercourses, or low-lying areas
- Keep the public away from the area
- Shut off the source of the spill if possible and safe to do so
- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation
- Take measures to minimise the effect on ground water
- Contain any spilled liquid with sand or earth
- Recover liquid spills by pumping – use explosion proof pump or hand pump – or with a suitable absorbent material
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations
- See “First Aid Measures” and “Stability and Reactivity”

Major Water Spill

- Eliminate any sources of ignition
- Warn occupants and shipping in downwind areas of possible fire and explosion hazard
- Notify the port or relevant authority and keep the public away from the area
- Shut off the source of the spill if possible and safe to do so
- Confine the spill if possible
- Remove the product from the surface by skimming or with suitable absorbent material
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations
- See “First Aid Measures” and “Stability and Reactivity”.

7. HANDLING AND STORAGE

Precautions for safe handling

This product is highly flammable. Do not open near open flame, sources of heat or ignition. No smoking. Keep container closed. Handle containers with care. Open slowly to control possible pressure release. Material will accumulate static charge. Use grounding leads to avoid discharge (electrical spark)

Conditions for safe storage

Store in a cool, dry well ventilated place away from direct sunlight. Do not pressurise, cut, heat or weld containers - residual vapours are highly flammable. This product will fuel a fire in progress.

Incompatible materials

Natural, neoprene or nitrile rubbers, EPDM, polystyrene.

8. EXPOSURE CONTROLS: PERSONAL PROTECTION

National Exposure Standards

The time weighted average (TWA) concentration, which means the highest allowable exposure concentration in an eight-hour day for a five-day working week for this product is: Ethanol: 1,880 mg/m3 (1,000 ppm); Methanol: 262 mg/m3 (200 ppm). The short-term exposure limit (STEL), which is the maximum allowable exposure concentration at any time.is: Methanol: 328 mg/m3 (250 ppm);.

Biological limit values

Methanol: 15 mg/L Methyl alcohol in urine (end of shift)

Engineering Controls: Ventilation

The use of local exhaust ventilation is recommended to control process emissions near the source. Laboratory samples should be handled in a fume hood. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment.

Personal Protective Equipment

Respiratory Protection: Where concentrations in air may exceed the limits described in the National Exposure Standards, it is recommended to use a half-face or full-face filter mask to protect from overexposure by inhalation.

Recommended Filter Type: Type A filter material (organic vapour)

Refer to AS/NZS 1715: *Selection, Use and Maintenance of Respiratory Equipment* and AS/NZS 1716*: Respiratory Protective Devices* for further details on the use of respiratory protective equipment.

Eye Protection: Always use safety glasses or a face shield when handling this product.

Skin/ Body Protection: Always wear long sleeves and long trousers or coveralls, and enclosed footwear or safety boots when handling this product. It is recommended that chemical resistant gloves (e.g. PVC) be worn when handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Unit of measurement	Typical value
Appearance	-	Clear, colourless liquid
Odour	-	Not available
Odour Threshold	ppm	Not available
Melting Point/Range	°C	Not available
Boiling Point/ Range	°C	78
Flash Point	°C	13
Flammability	-	Highly flammable
Density @ 15°C	g/mL	0.79
Vapour Pressure @ 20°C	mmHg	44
Explosive Limits (LEL – UEL)	%	3.5 – 19.0
Vapour Density @ 20°C	kPa	1.59
Autoignition Temperature	°C	392
Decomposition Temperature	°C	Not available
Viscosity @ 20°C	cSt	Not available
pH	-	Not available
Partition Coefficient	-	Not available
Percent Volatiles	%	Not available
Solubility with Water	% w/w	Soluble
Other Solubility	% w/w	Not available
Other Information	-	-

The values listed are indicative of this product's physical and chemical properties. For a full product specification, please consult the Product Data Sheet.

10. STABILITY AND REACTIVITY

Chemical Stability

Stable at room temperature and pressure.

Conditions to avoid

Sources of heat and ignition, open flames.

Hazardous decomposition products

Decomposition products on burning (carbon oxides, hydrocarbons).

Hazardous reactions

Strong oxidizers, acids, strong alkalis, heat and sources of ignition.

Avoid: Contact with strong oxidising agents (e.g. hypochlorites, peroxides), acids (e.g. sulphuric acid), strong alkalis (e.g. hydroxides).

Hazardous Polymerisation

Not anticipated to occur.

11. TOXICOLOGICAL INFORMATION

Acute Effects

Ingestion

Ingestion of large amounts will result in central nervous system effects with symptoms such as headaches, dizziness, hallucinations, euphoria, excitation, drowsiness, blurred vision, fatigue, tremors, convulsions, vomiting and possible loss of consciousness. Severe acute intoxication effects may include hypoglycaemia, hypothermia, extensor rigidity, decreased blood pressure, vomiting blood and blood discharges. Aspiration to the lungs may cause chemical pneumonitis.

Eye Contact

The liquid and vapour/mist is moderately irritating to eyes and may cause pain, redness, irritation, tearing.

Skin Contact

Mildly irritating to the skin. Prolonged or repeated exposure may result in dryness and cracking of skin, itching or swelling. A small proportion of the population may develop an allergic skin reaction.

Inhalation

May be moderately irritating to respiratory system. Inhalation of high concentrations may result in nervous system depression which can lead to dizziness, headaches, nausea and vomiting. Inhalation or high or prolonged exposure may cause adverse central nervous system effects; see symptoms described under Ingestion.

Chronic Effects

Ethyl alcohol may cause adverse reproductive effects (foetal toxicity).

Methyl alcohol a low concentration component in the product is identified as suspected of damaging fertility or the unborn child.

Chronic intoxication from ingestion of the product, or repeated inhalation, may cause degenerative changes in liver, kidneys, hair, gastrointestinal tract and heart muscle.

Other Health Effects Information

Persons with pre-existing liver impairment and respiratory disorders may be at an increased risk from exposure. The effects of this product in combination with toluene are potentiated (greatly increased). This means that the effects suffered by ingestion or inhalation will be increase or experienced more quickly.

Toxicological Information

Oral / Dermal LD_{50}: Methyl alcohol: LD_{50} (oral, mouse) = 870 mg/kg

Inhalation LC_{50}: No data available

Acute Toxicity (6.1A, 6.1B, 6.1C, 6.1D): May be harmful if swallowed

Aspiration Hazard (6.1E): Not classified

Respiratory Irritation (6.1E): Not classified

Skin Corrosion/Irritation (8.2A, 8.2B, 8.2C, 6.3A): Not classified

Serious Eye damage/irritation (8.3A, 6.3A): Causes eye irritation

Respiratory or Skin Sensitisation (6.5A, 6.5B): Not classified

Germ cell mutagenicity (6.6A, 6.6B): Not classified

Carcinogenicity (6.7A, 6.7B): Not classified

Reproductive Toxicity (6.8A, 6.8B, 6.8C): Suspected of damaging fertility or the unborn child

Specific Organ Toxicity (Repeated and Single Exposure) (6.9A, 6.9B): May cause damage to organs through prolonged or repeated exposure

Narcotic Effects (6.9B): Not classified

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Toxicity

Fish toxicity, LC_{50} (96 hr):	No data available
Crustacean toxicity (Daphnia Magna), EC_{50} (48 hr):	No data available
Green algae toxicity, EC_{50} (72 hr):	No data available
Blue-green algae toxicity (Cyanobacteria), EC_{50} (72 hr):	No data available

Persistence/Degradability

Product is readily biodegradable - volatises to air.

Mobility

Product is soluble in water.

Bioaccumulative Potential

No information available

Other Information

Product is not identified as being ecotoxic in the aquatic environment. However if discharged in quantity may have biocidal effect.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities. Packaging may still contain harmful residue and/or fumes and vapours that are flammable. Ensure that empty packaging is allowed to dry.

Special Precautions for Landfill or Incineration

This product is NOT suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers. This product must be disposed as chemical waste in accordance with the local authority.

14. TRANSPORT INFORMATION

Road and Rail Transport		Marine Transport		Air Transport	
UN No.	1170	UN No.	1170	UN No.	1170
Proper Shipping Name	ETHANOL SOLUTION	Proper Shipping Name	ETHANOL SOLUTION	Proper Shipping Name	ETHANOL SOLUTION
DG Class	3	DG Class	3	DG Class	3
Sub. Risk	None	Sub. Risk	None	Sub. Risk	None
Pack Group	II	Pack Group	II	Pack Group	II
Hazchem	2YE	Hazchem	2YE	Hazchem	2YE

Dangerous Goods Segregation

This product is classified as Dangerous Goods Class 3, packing group II.

15. REGULATORY INFORMATION

Country/ Region: New Zealand

Inventory: NZIoC

Status: All components are listed in NZIoC

HSNO Approval: HSR002553: Denatured Ethanol Group Standard 2017

HSNO/HSWA Controls: Refer to the above Group Standard, Health and Safety at Work Act 2015, www.epa.govt.nz and www.worksafe.govt.nz for further information on controls

Certified Handler: Not required

Tracking: Not required

Restriction to workplace: Not applicable

Signage: Threshold quantity: 250 L

Fire extinguishers: Threshold quantity: 250 L

Emergency Response Plan: Threshold quantity: 1,000 L

Secondary containment: Threshold quantity: 1,000 L

Other: Location and transit depot test certification: 100 L (closed containers greater than 5 L); 250 L (closed containers up to and including 5 L); 50 L (open containers)

Hazardous atmosphere zone: 100 L (closed containers); 25 L (decanting); 5 L (open occasionally); 1 L (open containers in continuous use)

Agricultural Compounds and Veterinary Medicines Act 1997 (ACVM): Not applicable

Montreal Protocol on Substances that Deplete the Ozone Layer: Not applicable

Stockholm Convention: Not applicable

Rotterdam Convention: Not applicable

16. OTHER INFORMATION

Reasons for Issue: Update SDS format and company details.

Replaces SDS dated: 23 March 2015

New SDS issue date: 06 December 2018

Abbreviations:

ACGIH: American Conference of Governmental Industrial Hygienists

AS/NZS: Standards Australia & Standards New Zealand

BCF: Bioconcentration Factor

CAS: Chemical Abstracts Service

CCID: Chemical Classification and Information Database

EC_{50}: Effective Concentration, 50 per cent

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

HSNO: Hazardous Substances and New Organisms Act 1996

HSWA: Health and Safety at Work Act 2015

IARC: International Agency for Research on Cancer

IC_{50}: Half Maximal Inhibitory Concentration

LC_{50}: Lethal Concentration, 50 per cent

LD_{50}: Lethal Dose, 50 per cent

LEL: Lower Explosive Limit

LOAEL: Lowest-observed-adverse-effect level

NOAEL: No-observed-adverse-effect-level

NOEC: No Observed Effect Concentration

NZIoC: New Zealand Inventory of Chemicals

NZS 5433 New Zealand Standard Transport of Dangerous Goods on Land

OECD: Organisation for Economic Co-operation and Development

STEL: Short-Term-Exposure Limit

TLV: Threshold Limit Value

TWA: Time-Weighted Average

UEL: Upper Explosive Limit

References:

- Supplier Safety Data Sheets
- EPA CCID https://www.epa.govt.nz/database-search/chemical-classification-and-information-database-ccid/
- Workplace Exposure Standards and Biological Exposure Indices. 9th Edition, published by WorkSafe New Zealand November 2017. https://worksafe.govt.nz/topic-and-industry/work-related-health/monitoring/exposure-standards-and-biological-exposure-indices
- US EPA Toxnet ChemIDPlus: http://chem.sis.nlm.nih.gov/chemidplus (December 18)
- OECD eChemPortal Substance Search https://www.echemportal.org/echemportal/participant/page.action?pageID=9