

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER****Product Name** *Methylated spirits***Other Names** Ethanol**Company Name** Aurora Cleaning Supplies Pty Ltd**Address** Factory 1, 5 Bungaleen Court, Dandenong South, Victoria.**Tel/Email** Tel: 03 9768 2669 Email: office@auroracleaning.com.au**Recommended use** Manufacture of acetone and its derivatives, manufacture of glycerol and isopropyl acetate, solvent for essential and other oils, alkaloids, glue, resins, possible solvents for cellulose derivatives, coating solvent, anti-freeze agent for liquid fuel, enamel, extract processing, dehydrating agent, preservatives, lotion, denaturant.**Other Information** This MSDS summarises to the best of our knowledge, the health and safety hazard information of the product and how to safely handle and use the product in the work place.**Emergency Contact Details** Poisons Information Centre 131126**2. HAZARD IDENTIFICATION****Poisons Schedule (Aust)** Not scheduled**Hazard Classification** Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)**Hazard Categories** Flammable Liquids - Category 2 Serious Eye Damage/Irritation - Category 2A Specific Target Organ Toxicity (Single Exposure) - Category 3**Signal Word** Danger**Hazard Statements** H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H335 May cause respiratory irritation.**Precautionary Statements** Prevention P233 Keep container tightly closed. P271 Use only outdoors or in a well-ventilated area. P243 Take precautionary measures against static discharge. P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. Response P303 + P361 + P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. 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. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P370 + P378 In case of fire: Use carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol resistant foam or water spray for extinction. Storage P403 + P235 Store in a well-ventilated place. Keep cool. P403 + P233 Store in a well-ventilated place. Keep container tightly closed. Disposal P501 Dispose of contents/container in accordance with local / regional / national / international regulations.**3. COMPOSITION/INFORMATION ON INGREDIENTS****Information on Name CAS Proportion**

Ethanol 64-17-5 &gt; 95%

Methanol 67-56-1 &gt; .01%

Water 7732-18-5 Balance %

**4. FIRST AID MEASURES****Swallowed** Rinse mouth with water. Give plenty of water to drink provided victim is conscious. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Seek medical attention immediately.**Eye** Immediately flush eyes with plenty of water for at least 20 minutes while holding eyelids open. Take care not to rinse contaminated water into the non-affected eye. Seek immediate medical attention.**Skin** Use gentle, running warm water to rinse the injured area for more than 15 minutes as soon as possible. Remove contaminated clothes and shoes when flushing with water. Contaminated clothes must be washed thoroughly before disposal. If irritation persists, seek medical attention immediately.**Inhaled** Remove victim from exposure to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do NOT use mouth to mouth method. Induce artificial respiration with the aid of a pocket mask equipped with a one way valve or other proper respiratory medical device. Seek medical attention immediately.**Advice to Doctor** Treat symptomatically based on judgement of doctor and individual reactions of patient.**Medical Conditions Aggravated by Exposure** Exposure to large amounts can cause unconsciousness and death.**5. FIRE FIGHTING MEASURES****Flammability Conditions** Flame-proof equipment is necessary in all areas where this chemical is being used. Nearby equipment must be earthed.**Extinguishing Media** In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions include carbon dioxide, chemical powder and alcoholic foam. If safe to do so, remove containers from path of fire.**Fire and Explosion Hazard** Vapours and liquids are flammable. Liquid will accumulate electric charges. Vapour is heavier than air and may float to places far away, and may flashback from ignition sources. High heat will cause this material to decompose and produce toxic gas. The containers in a fire site may rupture and explode.**Hazardous Products of Combustion** High heat will cause this material to decompose and produce toxic gas.**Special Fire Fighting Instructions** Special Extinguishing Procedure: 1. Retreat and extinguish the fire from a safe distance or a protected area. 2. Stay upwind to keep away from hazardous vapour and toxic decomposition. 3. Any leakage should be stopped before extinguishing the fire. If the leakage cannot be stopped and there is no immediate danger in the surrounding area, allow it to burn away. If the leakage is not stopped before extinguishing the fire, the vapour and the air will form an explosive mixture and ignite afterwards. 4. Separate materials that are not on fire and protect the personnel. 5. Move the container away from the fire field under safe conditions. 6. Use water mist to cool the tanks or containers in exposed the fire field. 7. Using water fog to extinguish fire may be ineffective without trained fire-fighting personnel. 8. If the leakage is not ignited, spray water mist to disperse vapour and protect the personnel who try to stop the leakage. 9. A water spout is ineffective for extinguishing the fire. 10. For a big fire in a large area, use the unmanned water mist stand or the automatic water fire monitor. 11. Retreat from the fire field and allow the fire to burn out. 12. Stay away from the tanks. 13. When the safety valve alarm of the tank sounds or the colour changes due to fire, retreat immediately. 14. Personnel without special protective equipment should not enter the fire field.**Personal Protective Equipment** Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots and gloves) or chemical splash suit. Please note: Structural fire fighters uniform will provide limited protection.**Flash Point** 12 Degrees Celsius Closed Cup**Lower Explosion Limit** 2 %**Upper Explosion Limit** approx. 12 %

**Auto Ignition Temperature** No Data Available

**Hazchem Code** 2YE

**No other Data Available**

## **6. ACCIDENTAL RELEASE MEASURES**

**General Response Procedure** Shut off all possible sources of ignition. Use clean, non-sparking tools and equipment. Avoid accidents, clean up immediately. Increase ventilation. Avoid walking through spilled product as it is slippery when spilt. Before the polluted area is cleaned up completely, access to the area should be restricted. Make sure the cleaning work is performed by trained personnel. The personnel should wear appropriate personal protective equipment.

**Clean Up Procedures** Do not come in contact with the released chemical. Avoid the released chemical from entering the sewers or sealed spaces. Stop or reduce the leakage under safe conditions if possible. Use soil, sand or similar inert non-combustible substances that will not react with the spill to surround the spill. For small spills, absorb using an absorbent that will not react with the spill. The polluted absorbent becomes as harmful as the released chemical and should be placed in the appropriate container that is capped and labelled. Use water to clean up the leakage area. For large spills, contact the fire department, emergency rescue units and supplier for assistance.

**Containment** Stop leak if safe to do so.

**Environmental Precautionary Measures** Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management.

**Evacuation Criteria** Evacuate all unnecessary personnel.

**Personal Precautionary Measures** Personnel involved in the clean-up should wear full protective clothing as listed in section 8.

## **7. HANDLING AND STORAGE**

**Handling** Highly 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.

**Storage** Store in a well-ventilated area, away from sunlight, ignition sources and other sources of heat. Do not store near strong oxidants.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Biological monitoring** No biological limit allocated.

**Exposure control measures** 1880mg/m<sup>3</sup> (1000ppm) TWA (8hr)

**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.

**Personal Protection Equipment** RESPIRATOR: If work practices do not maintain airborne level 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. Respirators should comply with AS1716. EYES: Chemical splash goggles and/or face shield must be worn when possibility exist for eye contact due to splashing or spraying liquid or vapour (AS1336/1337). HANDS: Wear PVC, rubber or neoprene gloves. Do not use leather gloves (AS2161). CLOTHING: Wear impervious protective clothing including boots, lab coat, apron or coveralls and safety footwear (AS3765/2210).

**Work Hygienic Practices** Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State** Liquid

**Appearance** Liquid

**Odour** Alcoholic

**Colour** Clear

**No other data available**

## **10. STABILITY AND REACTIVITY**

**Chemical Stability** Product is stable under directed conditions of use, storage and temperature. Highly flammable liquid and vapour.

**Conditions to Avoid** Avoid Heat, sparks, static electricity, ignition sources, light.

**Materials to Avoid** Strong oxidants (such as nitrates, perchlorates and peroxides): increased risks of fire and explosion. Phosgene: produces isopropyl chlorocarbonate and hydrochloric acid. Ferric salt: causes explosive heat decomposition reaction. Hydrogen rPalladium: may catch fire if mixed in the air. Strong acid: May cause violent reaction. Alkali metals or alkali earth metals: may release flammable toxic gases.

**Hazardous Decomposition Products** Phosgene: produces isopropyl chlorocarbonate and hydrochloric acid. Ferric salt: causes explosive heat decomposition reaction. Hydrogen - Palladium: may catch fire if mixed in the air. Strong acid: May cause violent reaction. Alkali metals or alkali earth metals: may release flammable toxic gases.

**Hazardous Polymerisation** No Data Available

## **11. TOXICOLOGICAL INFORMATION**

**General Information** Ethanol: LC50 (Inhalation): 2000 ppm/10 hours (rat). LD50 (Ingestion): 3450 mg/kg (mouse).

Methanol: LC50 (Inhalation): 50 g/m<sup>3</sup>/2 hours (mouse) LD50 (Skin): 15,800 mg/kg (rabbit) LD50 (Ingestion): 5628 mg/kg (rat)

**Eye Irritant** Direct contact of liquid with the eyes will cause acute irritation.

**Ingestion** May cause dizziness, stomach-ache, painful cramps, nausea, vomiting and diarrhoea. Exposure to large amount will cause unconsciousness and death.

**Inhalation** Concentration of below 400 ppm will cause light irritation of the upper respiratory tract. High concentration will cause dizziness, loss of motor functions (loss of coordination), and deep coma.

**Skin Irritant** Short period of exposure will not irritate skin. Chronic: Prolonged or frequent skin contact may cause dryness and peeling. Prolonged or frequent skin contact may cause dryness and peeling.

**Carcinogen Category** No Data Available

## **12. ECOLOGICAL INFORMATION**

Ethanol: If spilled on soil, ethanol will either evaporate or leach into the ground due to the relatively high vapour pressure and low absorption in soil. It will biodegrade, probably to acetic acid and formaldehyde. Ethanol will volatilise

from water and biodegrade, and is not expected to bioconcentrate. It will photodegrade in air with a half-life ranging from hours (polluted air) to days (clean air). Fish Toxicity: LC0 (Golden Ide) >1000mg/L/48hrs. Invertebrate Toxicity:

EC50 (Daphnia Magna) is >1000mg/L/24hrs.

Methanol: If released into the atmosphere methanol degrades via reaction with photochemically produced hydroxyl radicals. It is expected to biodegrade in both soil and water. If spilt on soil it is expected to be susceptible to significant leaching, as well rapid evaporation from dry surfaces is likely to occur. Chronic aquatic toxicity possible above 32 ppm. Aquatic Toxicity: Arthropoda toxicity No effect level (Daphnia) is 10g/L/48hrs. Fish Toxicity: TLM

(Trout) is 8000 mg/L/48hrs. Amphibian Toxicity: LD<sub>50</sub> (Frog) is 59 gm/Kg.

**Mobility** When released into the soil, its high vapour pressure, faced with low adsorption from the soil, will cause it to evaporate quickly and seep into the ground.

**Environmental Fate** Do NOT let product reach drains, sewers or waterways.

**Bioaccumulation Potential** Will not accumulate inside the body.

**Environmental Impact** No Data Available

### 13. DISPOSAL CONSIDERATIONS

Dispose of at approved disposal sites. Follow local regulations.

### 14. TRANSPORT INFORMATION

**Land Transport (Australia) ADG Proper Shipping Name** ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

**Class** 3 Flammable Liquids **Subsidiary Risk(s)** No Data Available

**EPG** 14 Liquids - Highly Flammable **UN Number** 1170

**Hazchem** 2YE **Pack Group** II **Special Provision** No Data Available

### 15. REGULATORY INFORMATION

**Poisons Schedule (Aust)** No Data Available

### 16. OTHER INFORMATION

In case of poisoning call the Poison Information Centre, phone 131 126.

This MSDS summarises to the best of our knowledge the health and safety hazard information of the product and how to safely handle and use the product in the workplace.

... End of MSDS. ...