Material Safety Data Sheet

MOLYTEC Liquid Spanner Aerosol

1. Chemical Product / Company Identification

Product Name: Molytec Liquid Spanner
Product Type: Releasing Fluid
Product Size: 400g Aerosol Part No. M890
Proper Shipping Name: Aerosol
UN No.: 19
DG Class: 2.1
Sub Risk: Nil
Hazchem Code: 3WE
Poisons Schedule: n/a
Product Use: Penetrating and releasing fluid applied by aerosol spray.
Company Details: Molytec Australia P/L 1/9 Steel St Capalaba QLD Australia 4157
Phone: 07 3245 2355
Fax: 07 3245 2499

2. Hazards Identification

Hazard Category
Xi Irritant
F Flammable
Risk Phases
R10 Flammable
R36 Irritating to eyes
R37 Irritating to respiratory system
R38 Irritating to skin
R65 Harmful: may cause lung damage if swallowed

3. Composition and Information on Chemical Ingredients

<table>
<thead>
<tr>
<th>Chemical Entity</th>
<th>CAS No.</th>
<th>Proportion %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turpentine substitute</td>
<td>64742-88-7</td>
<td>30-60</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>10-30</td>
</tr>
<tr>
<td>Butane</td>
<td>68513-65-5</td>
<td>10-30</td>
</tr>
<tr>
<td>Materials determined to be non hazardous</td>
<td>Ethyl acetate</td>
<td>141-78-6</td>
</tr>
</tbody>
</table>

4. First Aid Measures

Swallowed
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 240 to 300mL (8 to 10 oz.) of water. If vomiting occurs naturally, rinse mouth and repeat administration of water. Obtain medical attention immediately.

Eye
Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes, by the clock, holding the eyelids open. Take care not to rinse contaminated water into the non-affected eye. Obtain medical attention immediately.

Skin
Remove contaminated clothing, shoes and leather goods. As quickly as possible, flush contaminated area with lukewarm, gently running water for at least 20 minutes, by the clock. If irritation persists, repeat flushing. Obtain medical attention immediately. Completely decontaminate clothing, shoes and leather goods before re-use, or discard.

Inhaled
If symptoms are experienced, remove source of contamination or move victim to fresh air. Keep patient warm and at rest. If breathing is irregular or has stopped administer artificial respiration. Seek medical attention if any effects persist.

Advice to Doctor
Treat symptomatically. Respiratory failure is the greater risk from overexposure to hydrocarbon solvents. Where decontamination indicates lavage, ensure a cuffed endotracheal tube is used.

5. Fire Fighting Measures

Emergency Response
(See Section 9 Physical and Chemical Properties for Autoignition temp and exposure limits.)
Small Fire
Use water spray, dry chemical or CO2
Large Fire
- Use water spray and fog
- Fight fire from protected position or use unmanned hose holders or monitor nozzles
- If safe to do so, move undamaged containers from fire area. Do not approach hot containers
- Cool containers with water before handling
- If impossible to extinguish fire, protect surroundings, withdraw from area and allow fire to burn.

6. Accidental Release Measures

Eliminate all ignition sources (no smoking, flares, sparks or flames) within at least 15m. Isolate area until gas has dispersed. All equipment used when handling the product must be earthed. Restrict access to area until completion of clean up. Ensure clean up is conducted by trained personnel only. Wear protective clothing including facemask, face shield and gauntlets. Ventilate the area. Prevent material from entering sewers or confined spaces. Stop or reduce leak if safe to do so. Contain spill with earth, sand, or inert, absorbent material. Small spills of solution: soak up with absorbent material. Put material in suitable, covered, labelled containers. Flush area with water preventing runoff entering drains. Large spills: contact fire and emergency services for advice.

Disposal:
Review federal, state and local government requirements prior to disposal.
7. Safe Handling Information

Storage:
- Store in original containers in approved flameproof area
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- No smoking, naked lights, heat or ignition sources.
- Keep containers securely sealed. Contents under pressure.
- Store away from incompatible materials.
- Store in a cool, dry, well ventilated area in an upright position out of direct sunlight.
- Avoid storage at temperatures higher than 40°C
- Protect containers against physical damage and check regularly for leaks.

8. Exposure Control and Personal Protection

Exposure Limits
No exposure standards have been established for this material. Exposure standards recommended by NOHSC for some ingredients are as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>STEL</th>
<th>TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane</td>
<td>Asphyxiant</td>
<td>800ppm</td>
</tr>
<tr>
<td>Butane</td>
<td></td>
<td>800ppm</td>
</tr>
<tr>
<td>Turpentine substitute</td>
<td>790mg/m³</td>
<td></td>
</tr>
<tr>
<td>Ethyl Acetate</td>
<td>1400mg/m³</td>
<td>400ppm</td>
</tr>
</tbody>
</table>

Engineering Controls
Use in well ventilated areas. Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use with local flameproof exhaust ventilation or while wearing organic vapour respirator. Vapour is heavier than air – prevent concentrations in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Explosive gas atmospheres may form, for further information refer to AS 2430.

Personal Protection
Where ventilation is not adequate, respiratory protection may be required. An approved organic vapour respirator should be used. Respiratory protection should comply with AS/NZS 1715 and AS/NZS 1716.

Eye Protection
Safety glasses or chemical goggles. Failure to do so may result in eye damage if an accident occurs. Consult AS 1336 & AS/NZ 1337 for information about eye protection.

Glove Type
Available information suggests gloves made of nitriles, viton, neoprene or other similar solvent resistant material. Keep solvent contact to a minimum. For help in selecting suitable gloves consult AS2161.

Clothing
Overalls or similar protective clothing. Consult AS 2919 for advice.

Flammability
- Heat or damage to containers may release flammable gases.
- Containers will explode when heated – ruptured containers will rocket.
- Released gases may form explosive mixtures with air in confined spaces.
- Released gases may travel to source of ignition and flash back.
- Organic chemicals may form flammable dust clouds in air; will burn if involved in fire.
- Fire may produce irritating, poisonous and/or corrosive gases.

9. Physical and Chemical Properties

Appearance & Odour: Clear brown liquid
Boiling Point: between 77°C to 195°C (for liquid concentrate)
Specific Gravity: 0.78 (for liquid concentrate)
Solubility in Water: Soluble (for liquid concentrate)
Vapour Pressure: 400Kpa @ 25°C (propane/butane blend propellant)
Flash Point: -17°C (propane/butane blend propellant)
Flamm. Limits: 1.5% to 9.6% in air (v/v) (propane/butane blend propellant)
Autoignition temp: 494°C to 600°C (propane/butane blend propellant)
PH: Not Available
Percent volatiles: approximately 70%

10. Stability and Reactivity

- Vapour is highly flammable
- Severe fire hazard when exposed to heat or flame
- Vapour forms explosive mixture with air
- Vapour may travel considerable distance to source of ignition
- Heating may cause expansion with violent container rupture
- Aerosol cans may explode on exposure to naked flames
- Rupturing containers may rocket and scatter burning materials
- Hazards may not be restricted to pressure effects
- Organic chemicals may form flammable dust clouds in air; will burn if involved in fire
- May emit acrid, poisonous or corrosive fumes
- On combustion, may emit toxic fumes of carbon monoxide (CO)
- Other combustion products include carbon dioxide (CO2)

Conditions to avoid: See “Safe Handling Information” (Section 7).
Material Safety Data Sheet

11. Toxicological Information

**Health Effects**

**Acute**
- If swallowed will cause irritation to the mouth, throat and stomach lining. May result in nausea, pain and vomiting. Severe lung damage can occur if solvents are aspirated into lungs.
- May cause moderate eye irritation with tearing, pain, redness and possible temporary impairment of vision. Contact with liquefied gas will cause severe damage.

**Eye**
- Prolonged contact with skin may have a de-fatting effect which may lead to irritation and in some cases irritant contact dermatitis. Contact with liquefied gas can result in cold contact burns.

**Skin**
- Inhalation of solvent vapour may cause nose and throat irritation. Inhalation of solvent vapour may result in nervous system effects such as dizziness, nausea, headache and sleepiness.
- Overexposures are irritating to the respiratory system. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Intentional ‘sniffing’ or inhalation of high levels of concentrated toluene vapours can result in death from cardiac arrest due to ventricular fibrillation, particularly in the case of children or adolescents.

**Chronic**
- Prolonged or repeated skin contact may lead to irritation contact dermatitis. Chronic solvent inhalation may cause kidney and liver damage and blood changes.

12. Ecological Information

Not Available

13. Disposal Considerations

Recommended method of disposal: Dispose of according to Federal, State and local government regulations.

EPA hazardous waste number: Not a RCRA hazardous waste.

14. Transport Information

**Transportation:**
- S5
- UN 1950
- Class 2.1

**Incompatible products:** Flammable gases shall not be loaded in the same vehicle or packed in the same freight container with:
  - Class 1 explosives
  - Class 3 flammable liquids (where both flammable liquids and gases are in bulk)
  - Class 4.1 flammable solids
  - Class 4.2 spontaneously combustible substances
  - Class 4.3 dangerous when wet substances
  - Class 5.1 oxidising agents
  - Class 5.2 organic peroxides
  - Class 7 radioactive substances

15. Regulatory Information

None Available

16. Other Information

Users should verify the currency of this data sheet if more than 5 years old. The information contained in this material safety data sheet is believed to be accurate on the date of issue and in accordance with the information available to us. Persons dealing with products referred to in this MSDS do so at their own risk. We accept no liability whatsoever for damage or injury however caused arising from use of this information or of suggestions contained herein.

POLICE AND FIRE BRIGADE: DIAL 000

For further safety information contact Denis Brown at MOLYTEC AUSTRALIA on:
Tel: (07) 3245 2355 Fax: (07) 3245 2499
P.O. Box 5357, Alexandra Hills, QLD, Australia, 4161

Disclaimer

The information contained within this MSDS applies only to the MOLYTEC product to which the sheet relates. The information provided is based on our best knowledge at the time of issue. The information contained within this MSDS is believed to be accurate and is given in good faith. However no warranty is made, either express or implied, regarding its accuracy or any liability arising out of the use of the information herein or the products supplied. When used in other preparations, formulations, or in mixtures, it is necessary to ascertain whether the classification of the hazards has changed. The attention of the user is drawn to the possibility of creating other hazards when the product is used for purposes other than that for which it was recommended. In such cases a reassessment may be necessary and should be made by the user. This safety data sheet should only be used and reproduced in order that the necessary measures are taken relating to the protection of health and safety at work.

It is the responsibility of the handlers to pass on the totality of the information contained within this document to any subsequent person(s) who will come in to contact with, handle or use this product in any way.

They should check the adequacy of the information provided within this MSDS before passing it on to their customers / staff.

END OF DOCUMENT