

# Dye Penetrant Aerosol

## Material Safety Data Sheet

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Chemtools Dye Penetrant Aerosol  
**Part Numbers:** CT-DPI300  
**Product Type:** Supplied as an aerosol pack. Contents under PRESSURE. Red liquid aerosol with aromatic hydrocarbon odour; does not mix with water.  
**Company Address:** Chemtools Pty. Ltd., PO Box463, Emu Plains, NSW 2750  
Ph: 1300 738 250  
**EMERGENCY PHONE:** Australia: Poisons Information Centre 13 1126  
International: Infotrac (708) 918 1900

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	CAS #	%	TWA mg/m <sup>3</sup>	HSIS mg/m <sup>3</sup>
aromatic 150	64742-95-6	30-60	900	
propylene glycol monomethyl ether - mixture of isomers	107-98-2	10-30	369	553
red dye		<10		
dimethyl ether	115-10-6	30-60	760	950

### 3. HAZARDS IDENTIFICATION

**Hazard Classification:** Hazardous Substance, Dangerous Goods. According to the criteria of Safe Work Australia and the ADG  
**Risk Phrases:** R12 - Extremely flammable.  
R36/37/38 - Irritating to eyes, respiratory system and skin.  
R44 - Risk of explosion if heated under confinement.  
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R61(2) - May cause harm to the unborn child.  
R66 - Repeated exposure may cause skin dryness and cracking.  
R67 - Vapours may cause drowsiness and dizziness.  
R20/21/22? - Inhalation, skin contact and/or ingestion may produce health damage\*  
R33? - Cumulative effects may result following exposure\*.

**Safety Phrases:** S01 - Keep locked up.  
S16 - Keep away from sources of ignition. No smoking.  
S23 - Do not breathe gas/fumes/vapour/spray.  
S24 - Avoid contact with skin.  
S25 - Avoid contact with eyes.  
S36 - Wear suitable protective clothing.  
S38 - In case of insufficient ventilation, wear suitable respiratory equipment.  
S37 - Wear suitable gloves.  
S39 - Wear eye/face protection.  
S51 - Use only in well ventilated areas.  
S09 - Keep container in a well ventilated place.  
S53 - Avoid exposure - obtain special instructions before use.  
S29 - Do not empty into drains.  
S401 - To clean the floor and all objects contaminated by this material, use water and detergent.  
S07 - Keep container tightly closed.  
S35 - This material and its container must be disposed of in a safe way.  
S13 - Keep away from food, drink and animal feeding stuffs.  
S26 - In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre. S57 - Use appropriate container to avoid environmental contamination.  
S61 - Avoid release to the environment. Refer to special instructions/Safety data sheets.  
S60 - This material and its container must be disposed of as hazardous waste.  
Skin, Inhalation, Eyes

**Relevant routes of exposure:**  
**Potential Health Effects**  
**Inhalation:**

Remove to fresh air. If symptoms develop and persist, get medical attention. Lay patient down. Keep warm and rested. Protheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.



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**Skin contact:**

If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a dema resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.  
Wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse.  
Remove any adhering solids with industrial skin cleansing cream.  
DO NOT use solvents.  
Seek medical attention in the event of irritation. Get medical attention if symptoms occur.

**Eye contact:**

Check for and remove any contact lenses. Immediately flush with copious amounts of fresh running water for at least 15 minutes, holding eyelids open all the time. Seek medical attention immediately.  
Loosen any tight clothing. Keep individual calm. Obtain medical attention.  
• DO NOT use solvents.

**Eye contact:**

• Seek medical attention in the event of irritation.  
Check for and remove any contact lenses. Immediately flush with copious amounts of fresh running water for at least 15 minutes, holding eyelids open all the time. Seek medical attention immediately.  
Loosen any tight clothing. Keep individual calm. Obtain medical attention.

**Ingestion:**

Harmful. Not considered a normal route of entry.  
If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.  
If swallowed do NOT induce vomiting.  
If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.  
Observe the patient carefully.  
Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.  
Avoid giving milk or oils. Avoid giving alcohol.

#### 4. FIRST AID MEASURES

**Inhalation:**

Remove to fresh air. If symptoms develop and persist, get medical attention.  
Lay patient down. Keep warm and rested.  
Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.

**Skin contact:**

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DO NOT use solvents.  
Seek medical attention in the event of irritation. Get medical attention if symptoms occur.

**Eye contact:**

Check for and remove any contact lenses. Immediately flush with copious amounts of fresh running water for at least 15 minutes, holding eyelids open all the time. Seek medical attention immediately.  
Loosen any tight clothing. Keep individual calm. Obtain medical attention.

**NOTES TO PHYSICIAN**

Treat symptomatically for lower alkyl ethers:

**BASIC TREATMENT**

- Establish a patent airway with suction where necessary.
- Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- Administer oxygen by non-rebreather mask at 10 to 15 l/min.
- A low-stimulus environment must be maintained.

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO<sub>2</sub> 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.

#### 5. FIRE-FIGHTING MEASURES

**Flash point:**

-41°C Properllant

**Autoignition temperature:**

Not Available

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### Extinguishing media:

SMALL FIRE: Water spray, dry chemical or CO<sub>2</sub>

LARGE FIRE: Water spray or fog.

FIRE FIGHTING

- 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.

FIRE/EXPLOSION HAZARD

- Liquid and vapour are flammable.
- Moderate fire hazard when exposed to heat or flame.
- Vapour forms an explosive mixture with air.
- Moderate explosion hazard when exposed to heat or flame.

Combustion products include:

carbon dioxide (CO<sub>2</sub>).

sulfur oxides (SO<sub>x</sub>).

other pyrolysis products typical of burning organic material.

Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.

### Special fire fighting procedures:

None

### Unusual fire or explosion hazards:

Moderate explosion hazard when exposed to heat or flame

### Hazardous combustion products:

carbon dioxide (CO<sub>2</sub>). sulfur oxides (SO<sub>x</sub>).

Other pyrolysis products typical of burning organic material. Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.

### Hazchem Code:

2[Y]E

### Personal Protective Equipment

Breathing apparatus.

Gas tight chemical resistant suit.

Limit exposure duration to 1 BA set 30 mins.

## 6. ACCIDENTAL RELEASE MEASURES

**Environmental precautions:** Extinguish all ignition sources. Ventilate well. Use approved respirator if air contamination is above accepted level. Prevent product from entering drains or open waters. Avoid contact with spilled or released material. Immediately remove all contaminated clothing. Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area.

Use appropriate containment (of product and fire fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays.

Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.

**Clean-up methods:** For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

### MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Wear protective clothing, impervious gloves and safety glasses.
- Shut off all possible sources of ignition and increase ventilation.

### 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.

Additional Advice :: Notify authorities if exposure to the general public or the environment occurs or is likely to occur. Vapour may form an explosive mixture with air.

## 7. HANDLING AND STORAGE

### Handling:

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.

### Storage:

Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can.

Store in original containers in approved flammable liquid storage area.

DO NOT store in pits, depressions, basements or areas where vapours may be trapped.

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**Incompatible products:** No smoking, naked lights, heat or ignition sources.  
Keep containers securely sealed. Contents under pressure.  
Refer to Section 10.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering controls:** Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.  
The basic types of engineering controls are:  
Process controls which involve changing the way a job activity or process is done to reduce the risk.  
Enclosure and / or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. **Respiratory protection:** Type AX Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

**Skin 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: Nitrile rubber gloves Incidental contact/Splash protection: PVC or neoprene rubber gloves 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.

**Eye/face protection:** Safety goggles\* or safety glasses with side shields. - \*Chemical goggles.  
Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent].

**HANDS/FEET**  
No special equipment needed when handling small quantities.  
OTHERWISE: For potentially moderate exposures:  
Wear general protective gloves, eg. light weight rubber gloves.

**OTHER**  
No special equipment needed when handling small quantities.  
OTHERWISE:  
• Overalls.  
• Skin cleansing cream.  
• Eyewash unit.  
• Do not spray on hot surfaces.

See Section 2 for exposure limits.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Liquid.  
**Colour:** Clear, colourless.  
**Odour:** Paraffinic  
**pH:** Not applicable  
**Boiling point/range:** 118°C.  
**Melting point/range:** Not available  
**Specific gravity:** <1  
**Vapour density:** >1  
**Evaporation rate:** Not available  
**Solubility in water:** Immiscible

### 10. STABILITY AND REACTIVITY

**Stability:** Stable.  
**Hazardous polymerization:** Will not occur.  
**Hazardous decomposition products:** Not Available  
**Incompatibility:** Avoid reaction with oxidising agents..  
**Conditions to avoid:** See "Handling and Storage" (Section 7) and "Incompatibility" (Section 10).

### 11. TOXICOLOGICAL INFORMATION

**Product toxicity data:**

[info@chemtools.com.au](mailto:info@chemtools.com.au)  
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ACUTE HEALTH EFFECTS	Irritating to eyes, respiratory system and skin. Vapours may cause dizziness or suffocation. Vapours may cause drowsiness and dizziness. Inhalation, skin contact and/or ingestion may produce health damage*. * (limited evidence).
CHRONIC HEALTH EFFECTS	May cause harm to the unborn child. Repeated exposure may cause skin dryness and cracking. Cumulative effects may result following exposure*. * (limited evidence).
TOXICITY AND IRRITATION	Not available. Refer to individual constituents.

### 12. ECOLOGICAL INFORMATION

This material and its container must be disposed of as hazardous waste.

#### Ecotoxicity

Ingredient	Persistence:	Persistence: Air	Bioaccumulation	Mobility
Chemtools Developer Aerosol CT-DVP300	No Data Available	No Data Available		
ethanol	LOW	MED	LOW	HIGH
propylene glycol monomethyl ether - alpha isomer	LOW	LOW	LOW	HIGH
hydrocarbon propellant	No Data Available	No Data Available		

, may cause long-term adverse effects in the aquatic environment.

### 13. DISPOSAL CONSIDERATIONS

**Recommended method of disposal:** Dispose of according to Federal, State and Local governmental regulations.

### 14. TRANSPORT INFORMATION

#### Domestic (Land) ADG :

Proper shipping name:	AEROSOLS
UN No.:	UN1950
Hazard class or division:	2.1
Packing group:	None

#### IMDG:

Proper shipping name:	AEROSOLS
Identification No.:	UN1950
Hazard class or division:	None
Packing group:	None
Marine Pollutant:	Yes

#### International Air Transportation (ICAO/IATA):

Proper shipping name:	AEROSOLS, FLAMMABLE
Hazard class or division:	SP63
Identification number:	UN1950
Packing group:	Y203

### 15. REGULATORY INFORMATION

Regulations for ingredient

aromatic 150 (CAS: 64742-95-6,64742-94-5) is found on the following regulatory lists;  
"Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia  
Chemical Substances (AICS)", "International Council of Chemical Associations (ICCA) - High Production Volume List"



propylene glycol monomethyl ether - mixture of isomers (CAS: 107-98-2,1320-67-8,28677-93-2) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia Hazardous Substances", "Australia Inventory of Chemical Substances (AICS)", "IMO MA 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Council of Chemical Associations (ICCA) High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List"

dimethyl ether (CAS: 115-10-6,157621-61-9) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia Hazardous Substances", "Australia Inventory of Chemical Substances (AICS)", "International Council of Chemical Associations (ICCA) - High Production Volume List".

### 16. OTHER INFORMATION



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**Abbreviations/Acronyms:**

ACGIH – American Conference of Government Industrial Hygienists.  
ADG –Australian Dangerous Goods.  
HSIS - Hazardous Substances Information System.  
IARC – International Agency for Research on Cancer.  
NIOSH – National Institute of Occupational Health and Safety.  
NOHSC – National Occupational Health and Safety Commission.  
PEL – Permissible Exposure Limit.  
STEL – Short Term Exposure Limit.  
SUSDP – Standard for the Uniform Scheduling of Drugs and Poisons.  
TLV – Threshold Limit Value.  
TWA – Time Weighted Average.

**Date of MSDS:**

May 2013

**INGREDIENTS WITH MULTIPLE CAS NUMBERS**

Ingredient Name	CAS
aromatic 150	64742-95-6, 64742-94-5
propylene glycol monomethyl ether - mixture of isomers	107-98-2, 1320-67-8, 28677-93-2,
dimethyl ether	115-10-6, 157621-61-9

**DISCLAIMER:**

The information contained within this MSDS applies only to the ChemTools 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 expressed or implied, regarding its accuracy or any liability arising out of the use of the information herein or the product supplied.

When used in other preparations, formulations, or in mixtures, it is necessary to ascertain whether the classifications of the hazards have changed. The attention of the user is drawn to the possibility of creating other hazards when the product is used for purpose 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 MSDS**

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