



## Home fire safety fact sheet

### Hazardous Materials

There are many products that we use in the home with little thought about their flammability and volatility, that is, how easily they could start a fire with careless use or storage.

These include:

- fuels used for lawnmowers and power tools
- fuels used for heaters
- paint thinners and solvents
- cleaning products
- pool chemicals
- aerosols which use flammable propellant gas
- acetone (nail polish remover) and
- solvent based glues.

Material	Fire Safety Notes
Fuels for lawn mowers and other tools	<p>Petrol (including two stroke) is highly flammable and gives off explosive vapours.</p> <ul style="list-style-type: none"> <li>• Do not refuel the appliance when the engine is running.</li> <li>• Do not refuel when the appliance is hot; it must cool down first.</li> <li>• Use a directional funnel to prevent spills and clean up spills immediately. Do not overfill containers or tanks.</li> <li>• Refuel in a well ventilated area to avoid the accumulation of explosive vapours.</li> <li>• Ensure any containers being refilled are placed on the ground to limit the potential for static electricity.</li> <li>• Storage – see section below.</li> <li>• Disposal of cleaning rags – see section below.</li> </ul>

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Fuels used for heaters	<p>Some heating appliances burn ethanol (or methylated spirits) or kerosene.</p> <ul style="list-style-type: none"><li>• Do not refuel the appliance when it is alight/in use. Do not refuel in the vicinity of any other open flame – e.g. lit candle, lit gas cooktop, gas pilot light.</li><li>• Do not refuel the appliance when it is hot; it must cool down completely before refilling the tank.</li><li>• Do not smoke while refuelling.</li><li>• Use a directional funnel to prevent spills and clean up spills immediately. Do not overfill containers or tanks.</li><li>• Refuel in a well-ventilated area to avoid the accumulation of explosive vapours.</li><li>• Ensure any containers being refilled are placed on the ground to limit the potential for static electricity.</li><li>• Storage – see section below.</li><li>• Disposal of cleaning rags – see section below</li></ul> <p>See also - Home Fire &amp; Life Safety Fact Sheet "<a href="#">Home Heating.</a>"</p>
Paint thinners and solvents	<p>Turpentine and other petroleum-based solvents are highly flammable and give off explosive vapours.</p> <ul style="list-style-type: none"><li>• Use only in a well-ventilated area to avoid the accumulation of explosive vapours.</li><li>• Do not use in the vicinity of any open flame – e.g. lit candle, lit gas cooktop, gas pilot light.</li><li>• Do not smoke while using these products.</li><li>• Disposal of rags – see section below.</li><li>• Storage – see section below.</li></ul>
Cleaning products	<p>Methylated spirits and white spirit are sometimes used for household cleaning purposes.</p> <ul style="list-style-type: none"><li>• Use only in a well-ventilated area.</li><li>• Do not use in the vicinity of any open flame – e.g. lit candle, lit gas cooktop, gas pilot light</li><li>• Do not smoke while using these products.</li><li>• Disposal of cleaning rags – see section below.</li><li>• Storage – see section below.</li></ul>

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Pool chemicals	<p>Chemicals used for chlorinating swimming pools may react with other stored chemicals that could result in a fire starting.</p> <p>Granular pool 'chlorine' (calcium hypochlorite) may start a fire if it comes into contact with:</p> <ul style="list-style-type: none"><li>• Fuels (e.g. petrol)</li><li>• oils;</li><li>• brake fluid; or</li><li>• detergents.</li></ul> <p>It also reacts with acids to release the toxic gas chlorine, so must be stored separately from acids such as pool acid (hydrochloric acid).</p> <p>Liquid pool 'chlorine' (sodium hypochlorite solution) is a corrosive liquid. It also reacts with acids to release chlorine and must be stored separately from pool acid (hydrochloric acid).</p> <p>The different types of pool chemicals - granular pool 'chlorine', liquid pool 'chlorine' and pool chlorine tablets - should not be mixed or used together. Some combinations are incompatible and may cause fires or explosions.</p>
Aerosols with flammable propellant gas	<p>Common household products such as:</p> <ul style="list-style-type: none"><li>• spray cooking oil;</li><li>• hairspray;</li><li>• perfume and cologne;</li><li>• deodorant or body spray; and</li><li>• polish</li></ul> <p>They are often sold in aerosol form. If the aerosol uses a flammable propellant gas they should not be used near an open flame (bbq grill, lit gas cooktop, lit candle, pilot light) or while smoking.</p>

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Acetone	<p>Acetone is commonly used in the home for removing nail polish, dissolving certain types of glue and as a paint thinner. It is highly flammable and gives off explosive vapours.</p> <ul style="list-style-type: none"><li>• Use only in a well-ventilated area.</li><li>• Do not use in the vicinity of any open flame – e.g. lit candle, lit gas cooktop, gas pilot light.</li><li>• Do not smoke while using acetone.</li><li>• Wash your hands after using acetone to remove nail polish.</li><li>• Disposal of cleaning rags – see section below.</li><li>• Storage - see section below.</li></ul>
Solvent based glues and adhesives	<p>Many glues and adhesives used around the home are solvent based. When the solvent evaporates it may become an explosive gas.</p> <ul style="list-style-type: none"><li>• Use only in a well-ventilated area.</li><li>• Do not use in the vicinity of any open flame – e.g. lit candle, lit gas cooktop, gas pilot light.</li><li>• Do not smoke while using these products.</li><li>• Disposal of cleaning rags – see section below.</li><li>• Storage – see section below.</li></ul>

## Storage of Flammable Fuels and Solvents

The storage of highly flammable liquids is regulated by The South Australian Dangerous Substances Regulations 2002.

In a domestic (unlicensed) situation the storage of highly flammable liquids must not exceed 120 litres and the container sizes must be no greater than 60 litres. This does not include fuel in the fuel tanks of vehicles and equipment.

Quantities in excess of this require a license under the Dangerous Substances Regulations and must be stored in accordance with the requirements of Australian Standard 1940-2004 'The Storage and Handling of Flammable and Combustible Liquids'.

All flammable liquids must be stored in suitable containers and labelled appropriately. Metal containers are suitable, providing they are of good quality and are well sealed but do not store them on the ground as condensation can cause the metal to rust. The only suitable plastic containers are those specifically manufactured for the purpose of fuel storage and must meet the requirements of Australian Standard 2906 'Fuel containers, portable, plastic and metal'.

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The containers should be stored in a well-ventilated place, clear of electrical equipment and other potential heat and ignition sources. Food and drink containers, or glass containers, must not be used for the storage of fuels.

Do not store flammable liquids inside a house or building where people sleep, including in garages which are built under the main roof of the house.

## Disposal of Cleaning Rags

Rags that have been used with petrol, methylated spirits, turpentine, white spirit, acetone, solvent based glues and petroleum-based paint thinners should be dried in a well ventilated area (to remove the volatile vapours) before disposal.

Rags that have been used with drying oils, such as linseed oil, or oil-based paints may self-heat and spontaneously ignite if they are not properly dealt with after use. A drying oil is an organic oil which dries in normal air temperature. Linseed oil, poppy oil, walnut oil, sunflower oil and safflower oil are known as drying oils.

Rags used with oil-based paints or glazes, linseed oil or other drying oils should be either immersed in water or spread out flat (not bunched up or folded) in a safe place to dry immediately after use. If it is necessary to transport oil or paint-soaked rags, they should be carried in sealed metal containers.

## Garden Chemicals and Pesticides

All garden chemicals and pesticides should be stored in a secure place where children cannot gain access. A lockable cupboard or steel cabinet located above a child's reach is the best storage.

Chemicals should be kept in their original containers which will have labels giving their correct name and the proper safety precautions.

If the product needs to be diluted before use, make up a sufficient supply for the day's activities. Any remaining material should be discarded appropriately unless it is to be kept in a properly-labelled container. Food and drink containers must never be used for the storage of garden chemicals or pesticides.

Some chemicals may be flammable or reactive. Take care to ensure that incompatible materials are not stored together.

In South Australia, the storage and use of hazardous substances and dangerous goods in the workplace is regulated by SafeWork SA, who can be contacted for further information via their website: <http://www.safework.sa.gov.au>.