AEROSOL PAINT CAN SAFETY

IN THE HOME AND AT WORK

KEEP AWAY FROM CHIDREN

Aerosol Spray Paint products are dangerous if used or stored improperly.

ALWAYS READ THE SAFETY DATA SHEET PRIOR TO USE

AEROSOL PAINT CAN SAFETY

Table of Contents

AEROSOL PAINT CAN SAFETY

1 Introduction

This document has been written to provide information on the safe use, storage and disposal of Aerosol paint cans in the home and at work.

- Aerosol paint products have been used in the home and by consumers for over 60 years. As with most consumer products, **if aerosol paint cans are used and stored, in accordance with label instructions, they are completely safe** and offer many benefits.

- Dulux, in line with the aerosol industry supports efforts to draw the public's attention to the safe use and storage of Aerosol paint can products. On pack (label) consumer safety advice is part of the industry-supported Australian (Aerosol) Standard, AS2278.

- The safety record of aerosol paint cans is excellent because of the great care the industry takes in their design, production and testing.

- Manufacturers are required by law to test all aerosol paint cans at elevated temperatures and under extreme pressures, during production, to ensure they can withstand some unexpected conditions.

- By law, Aerosol paint can product labels must guide consumers in the safe use and storage of aerosol paint cans. As with all products, it is important to follow label instructions.

- As a result, there are **very few** aerosol paint can accidents and these are **rarely serious**. Serious accidents are usually caused by someone deliberately disregarding label instructions or misusing products, e.g. throwing a can on a fire, exposing the can to excessive heat, using flammable products near ignition sources, impact damaging a can.

- **All Dulux aerosol paints contain gases and liquids that may be flammable if placed on a fire or near a heat source. Aerosol paint cans also contain contents under pressure.** This pressure in the can increases rapidly with heat and may cause the can to burst. It is important to remember **NEVER** to leave an aerosol paint can inside a car or other enclosed vehicle. Vehicle interiors can rapidly heat up even on cloudy days. At all times aerosol paint cans must be protected from prolonged exposure to direct sunlight – even on cold days.

AEROSOL PAINT CAN SAFETY

2 Aerosol Paint Cans And Storage.

Aerosol paint cans are made from tinplated steel which will corrode if the surface coating is damaged or exposed to moisture and/or corrosive substances.

- Aerosol paint cans **MUST** be stored in a cool, dry place away from corrosive chemicals.
- Moist conditions are common in garages, external sheds, laundries, bathrooms or kitchen areas where water and condensation are present. **Avoid moist conditions** when storing aerosol paint cans.
- Corrosive chemicals are often stored in the same locations. Aerosol paint cans must be stored well away from corrosive chemicals (e.g. pool chemicals, drain cleaners, bleach, toilet and bathroom cleaners, all types of kitchen and laundry detergents, floor cleaning compounds, acidic and alkali materials, etc.)
- **NEVER** store aerosol paint cans in areas where welding, or other hot work is being conducted.
- **NEVER** store aerosol paint cans in direct sunlight

3 Aerosol Paint Cans and Heat

- Aerosol paint cans **MUST** be **protected from heat**. Aerosol paint cans must not be left outdoors in the sun, on windowsills, or near barbeques or other exposed conditions.
- **Never keep aerosol paint cans inside cars - not even in the boot** - because temperatures can rise quickly even on cool, cloudy days to levels that exceed the can design limits. Aerosol paint cans have been known to explode when left in cars.
- Aerosol paint cans must not be left, or used, near barbecues, cooktops, heaters, ovens, pilot lights, welding equipment, grinding equipment, incandescent lighting, other sparking equipment or tools etc.) which might expose them to high temperatures or sources of ignition.
- Aerosol paint cans must not be pierced or burnt, even when empty. This is because there is always some pressure, and possibly some product, left in the can.
- **Never** put aerosol paint cans into a fire, even when seemingly empty, because they will explode and may cause serious injury.
- Do not use aerosol paint cans on or near naked flames, fire or sources of ignition (like candles, embers, pilot lights, incandescent light bulb, sparking electrical motors and equipment etc.).
- Do not place an aerosol paint can in hot water to increase the internal pressure in order to enhance the spray. Aerosol paint cans have been known to explode when placed in hot water.
- Do not smoke when using an aerosol paint can or immediately afterwards. Ensure that **ALL** gas and solvent vapours have left the area before smoking.
- Aerosol paint cans **MUST NOT** be allowed to freeze in cold weather.

AEROSOL PAINT CAN SAFETY

4 Aerosol Paint Cans and Impact

- **NEVER** strike an aerosol paint can against a hard surface or object. Not even if the can appears to be empty (**ESPECIALLY,** do not strike the can to start the mixing ball moving no matter what the instruction on the can may indicate)
- All aerosol spray paints (except clear coatings) suffer from settling of pigments to the bottom of the can in storage. When this pigment is not properly mixed, blockages of valves are likely to occur. That is why shaking the cans is required – to mix in this pigment.
- If you are unable to cause the mixing ball, inside the aerosol paint can, to start rattling within 30 seconds of shaking, **return the can to the place of purchase** for a replacement or refund. (**DO NOT** strike the can to start the mixing ball moving)
- **NEVER** compress an aerosol paint can by stamping on it, placing it in a vice, driving a car over it, etc.
- Aerosol paint cans are made with two mechanical seams at the top, and one at the bottom of the can. There is also a welded seam on the side of the can. All of these seams can be distorted or broken if subject to impact or high force.
- Damaged aerosol paint can seams are at risk of unexpected failure and may cause injury or property damage.
- **ALWAYS** take more care when handling a distorted or damaged aerosol paint can.
- **NEVER** drop an aerosol paint can on a hard surface. If this occurs, inspect the can for any damage or distortion of the seams prior to continuing use. If damaged carefully expel the contents and dispose of the empty aerosol paint can into either the waste bin or recycle bin.

5 Aerosol Paint Cans contain Flammable Materials

- All Dulux aerosol spray paints contain flammable gas propellant.
- Most Dulux aerosol spray paints also contain flammable solvents.
- **ALWAYS** use aerosol paint cans in a well ventilated area with good airflow.
- **NEVER** smoke during or after aerosol paint can use when flammable vapours may be present.
- **NEVER** use aerosol paint cans near or around sources of ignition which might expose them to high temperatures or sources of ignition. (e.g. heater, oven, cooktop, barbeque, pilot light, welding equipment, grinding equipment, incandescent lighting, other sparking equipment or tools etc.)
- The propellant gases used in Dulux aerosol spray paints are odourless, and heavier than air. They settle into low points and hollows in poorly ventilated buildings and rooms, and can build sufficient concentrations in these situations to form a flammable mixture, that on exposure to a flame, spark or high heat will ignite.
- These gases can also travel to points well away from the original area of use. Ensure that there is no ignition source anywhere near the flow of gas, and solvent, exiting from the aerosol paint cans. Ensure that all flammable gas and solvent has dissipated prior to using any source of ignition.

AEROSOL PAINT CAN SAFETY

- When using Dulux aerosol paint cans in a confined area, (e.g. inside a house or room, inside a cupboard or under a sink etc.) use in short two or three second bursts only. **Open** windows and doors prior to spraying to ensure good ventilation.

6 Aerosol Spray Cans Contain Materials Under Pressure

- All Dulux aerosol spray paint is supplied in pressurised cans.
- **ALWAYS** wear **safety glasses** when using aerosol paint cans to reduce potential to spray paint in your eyes.
- Aerosol paint cans increase in pressure with a rise in temperature.
- **ALWAYS** keep aerosol paint cans cool and away from direct sunlight and sources of heat.
- **NEVER** pierce or crush an aerosol paint can even when it appears empty. It is a feature of the gas used in aerosol spray paints that it maintains a constant high pressure in the can. An empty can retains the same pressure as a full can, so exhibits the same danger if mistreated.

7 Aerosol Paint Cans and Corrosion

- Aerosol Paint Cans **MUST** be protected from corrosive environments.
- You must never keep Aerosol Paint Cans in areas where they can be exposed to condensation, rain, standing water or corrosive chemicals.
- Aerosol Paint Cans will show visible signs of corrosion – rust – generally along the seams and inside the top cupped sections of the can.
- Any corrosion (rust) on an Aerosol Spray Paint can **MUST** be treated as a serious condition and care taken when using or expelling the contents and when disposing.

8 How to Dispose of Used Aerosol Paint Cans

- DULUX aerosol spray paint cans are suitable for steel recycling – **WHEN EMPTY**
- Most Councils accept aerosol paint cans in their kerbside collection schemes and at waste disposal sites. In fact, around 90% of Australians are able to recycle their empty post-consumer aerosol paint cans.
- To find out if your Council accepts aerosol paint cans, visit **www.recyclingnearyou.com.au**, call your Council, or call the Recycling Hotline: 1300 733 712. If they don't accept aerosol paint cans, encourage them to do so!
- Place your **EMPTY** aerosol paint cans straight into your recycling bin, along with other aluminium or steel household waste.
- **DO NOT** pierce, squash or separate them. It helps, but is not essential, if you remove any large plastic parts that come off easily, like the lid.
- To dispose of any **full or part-full** aerosol paint cans, contact your local council as many offer **Household Hazardous Waste Collections** throughout the year.

AEROSOL PAINT CAN SAFETY

- To dispose of **nearly empty** aerosol paint cans, spray unwanted paint onto newspaper, allow to dry and dispose of remaining contents/container in accordance with local, regional, national and international regulations.

For further recycling information go to: **http://aerosol.com.au/about-aerosols/aerosol-recycling/**

9 What to do with a Corroded Aerosol Spray Paint Can

- You must take **EXTREME CARE** in handling and disposing of any aerosol can you find that is corroded on the outside.
- When handling or disposing of a corroded (rusted) aerosol can you must wear the appropriate **Personal Protective Equipment** (PPE)
- PPE for handling such cans includes Safety Goggles or a full Face Shield (not just Safety Glasses), strong leather gloves (preferably gauntlet style) over chemical resistant nitrile rubber gloves, and a Leather apron or similar to protect your body.
- **NEVER** point the top or the base of a corroded (rusted) can at yourself or another person.
- Corroded (rusted) cans **MUST** always be **FULLY EMPTIED** before disposing of them to the waste or recycling streams.
- Remember it is **NOT ACCEPTABLE** to dispose of a dangerous product into the recycling stream that may present a danger to a worker in a sorting or recycling facility.

TO EMPTY A CORRODED AEROSOL SPRAY PAINT CAN YOU MUST FOLLOW THE STEPS BELOW.

- **NEVER SHAKE** a rusted can
- The steps taken to vent the gas from a can will depend on the nature of the Aerosol Spray Paint that you are disposing.
- All Aerosol Spray Paints (except clear coatings) suffer from settling of pigments to the bottom of the can, in storage. It is when this pigment is not properly mixed that blockages of valves occurs. That is why shaking of the cans is required – to mix in this pigment.
- When an aerosol paint can is corroded (rusted), the strength of the can in the rusted areas is unpredictable, and the simple shaking action could cause it to fail explosively.
- Rusted aerosol paint cans must be treated with extreme caution.

For aerosol paint cans that normally spray in the **UPRIGHT POSITION** please follow these steps.

1. Put on required PPE (as described above)
2. **GENTLY** pick up the corroded aerosol paint can and take it to an outside location in a well ventilated position away from any sources of ignition.
3. **NEVER** point the top or the base of a corroded (rusted) aerosol paint can at yourself or others.
4. Without shaking, **SLOWLY** rotate it to an inverted position (upside down) with the valve pointing to the ground.

AEROSOL PAINT CAN SAFETY

5. Point the spray nozzle away from yourself and stand in an upwind position from the expected venting gas.
6. Hold the aerosol paint can firmly in one hand and with the other hand press open the valve.
7. Gas should start to escape. Hold the nozzle open as long as you are able. If your hand on the nozzle becomes tired, take a break before continuing. If you need to put the aerosol paint can down at this time, do so in smooth and gentle movements.
8. During the venting the aerosol paint can may become cold and condensation may form on the can. This is normal.
9. Continue venting until the gas flow ceases. (This could take up to 10 minutes depending on how full the aerosol paint can was to start with.)
10. Once the gas flow ceases turn the aerosol paint can upright and use a gentle swirling action to very lightly agitate the remaining contents. **DO NOT SHAKE** the can. Use this gentle swirling action for 30-60 seconds.
11. With the aerosol paint can in the upright position expel the remaining contents onto newspaper.
12. When empty, dispose of the aerosol paint can in the recycle bin. (See section 8. Recycling of Aerosol Paint Cans above.)
13. Allow the expelled paint to dry on the newspaper and then dispose of in the waste bin.

For Aerosol Paint Cans that normally spray in the **UPSIDE DOWN POSITION**, please follow these steps.

1. Put on required PPE (as described above)
2. **GENTLY** pick up the corroded can and take it to an outside location in a well ventilated position away from any sources of ignition.
3. **NEVER** point the top or the base of a corroded (rusted) can at yourself or another person.
4. Keeping the can in the **upright** position, point the spray nozzle away from yourself and stand in an upwind position from the expected venting gas.
5. Hold the can firmly in one hand and with the other press open the valve.
6. Gas should start to escape. Hold the nozzle open as long as you are able. If your hand on the nozzle becomes tired, take a break before continuing. If you need to put the can down at this time do so in smooth gentle movements.
7. During venting the aerosol paint can may become cold and condensation may form on the can. This is normal.
8. Continue venting until the gas flow ceases. (This could take up to 10 minutes depending on how full the can was to start with.)
9. Once the gas flow ceases, use a gentle swirling action to very lightly agitate the remaining contents. **DO NOT SHAKE** the can. Use this gentle swirling action for 30-60 seconds.
10. Turn the aerosol paint can upside down and expel remaining contents onto newspaper.
11. When empty, dispose of the aerosol paint can in the recycle bin. (See Section 8. Recycling of Aerosol Paint Cans above.)

12. Allow the expelled paint to dry on the newspaper and then dispose of in the waste bin

NB: If an aerosol paint can is rusted or corroded, it may explode on impact. Wear safety glasses and chemical resistant gloves, and carefully spray out the entire contents, taking precautions to ensure that the can is not dropped or knocked against anything during this process. If the can blocks, or fails to empty completely, contact your local council for advice.

- Check **www.recyclingnearyou.com.au** for information on local council disposal.
- N.B. **ONLY EMPTY** cans can be placed into the recycle stream.

10 What to do if the Aerosol Paint Can Blocks and Fails to Spray.

These comments apply only to aerosol paint cans.

- If an aerosol paint can blocks, it will be in one of two locations on the exit of the paint from the can, either:
    a. In the Nozzle (actuator) that you press, or,
    b. In the Valve that sits at the top part of the can.
- **NEVER** remove the nozzle and attempt to push anything down into the valve system.
- There is **no accessible area** in the valve system that can be cleared from the outside.

If attempting to clear a blockage always do so whilst wearing safety glasses and chemical resistant gloves and perform the procedure in an open, well ventilated area.

Nozzle blockages can be cleared by removal of the nozzle and soaking for an hour or more in **Enamel Thinners**[1].

1. **GENTLY** remove the nozzle by twisting it as you pull it away from the can
2. Place enough Enamel Thinners in a small glass jar to cover the nozzle.
3. Allow the nozzle to soak for 30 minutes then gently shake the glass jar to move the Enamel Thinners around and through the nozzle
4. Repeat the above step.
5. Remove the nozzle and dry before replacing it on the valve.
6. **GENTLY** replace the nozzle by twisting it as you push it back on the can. NB. The nozzle only needs to be secure on the can. It will locate and clip into place the first time that you depress the nozzle.

[1] When using Enamel Thinners or any other solvent for cleaning purposes make sure to read ALL of the SDS safety information and follow directions for use on the Enamel Thinners container label.

AEROSOL PAINT CAN SAFETY

Valve blockages on male valves (those with a small plastic tube protruding from the top of the can) can sometimes be cleared, but care must be taken not to exert excessive force on the system that breaks the valve or the can.

1. Put on appropriate PPE
2. Place a piece of absorbent waste fabric or paper on a hard surface
3. Gently, and in a twisting motion, remove the nozzle from the valve
4. Gently turn the can upside down
5. Place the valve tube onto the fabric and **GENTLY** push down on the fabric to activate the valve.
6. Do this repeatedly (up to 10 times). If paint starts to flow or clear gas emerges, then the valve is cleared.
7. If the valve clears carefully replace the nozzle with a twisting motion.
8. Shake the can well before attempting to spray out the contents
9. If the valve fails to clear dispose of the can as per directions in section 8 How to Dispose of Used Aerosol Paint Cans.

11 Aerosol Paint and Volatile Substance Abuse

Volatile Substance Abuse, also called 'sniffing', 'huffing', 'bagging' or 'chroming', is **extremely dangerous** and can kill instantly. There are more than 200 types of household, medical and industrial products in Australia that contain potentially intoxicating volatile substances. The health impacts of abuse of any of these products can be serious or fatal.[2]

Advice on solvent abuse is available on sites such as;

- **http://www.healthinfonet.ecu.edu.au/health-risks/volatile-substance/reviews/background-information**
- LIFELINE **www.lifeline.org.au** **Phone 24/7 13 11 14**
- KIDSLINE **www.kidshelpline.com.au** **Phone 24/7** 1800 55 1800
- Australian Drug Information Network **www.adin.com.au/help-support-services**

[2] VSA info from www.healthinfonet.ecu.edu.au/health-risks/volatile-substance/reviews/background-information