

FLAMMABLE LIQUID SAFETY REGULATIONS: KEY PRACTICES FOR SOUTH AFRICAN BUSINESSES



Picture a bustling Pretoria warehouse where a single mislabeled drum of solvent sparks a fire, halting operations and costing the business over R500 000 in damages.

Flammable liquids—such as fuels, paints and cleaning agents—are vital to many South African industries, but without proper handling, they can lead to devastating accidents.

The General Safety Regulations (GNR.1031 of 30 May 1986) define a flammable liquid as “any liquid which produces a vapour that forms an explosive mixture with air and includes any liquid with a closed-cup flashpoint of less than 55°C”.

How can your business avoid costly penalties and ensure employee safety?

This article outlines essential tips and practices for safely managing flammable liquids in the workplace—helping business owners and compliance officers to protect employees, prevent costly incidents, and ensure compliance with the Occupational Health and Safety Act (Act No. 85 of 1993).

Why flammable liquid safety regulations matter

Flammable liquids pose significant risks, including fires, explosions and health hazards that can disrupt operations and lead to severe penalties.

According to the Department of Employment and Labour's 2023/24 annual report, workplace incidents involving hazardous substances, including flammable liquids, contributed to over 1 200 reported injuries in South African workplaces.

Non-compliance with OHS regulations can result in fines exceeding R100 000 or even business closure. By prioritising safe handling and storage, you protect your employees, safeguard your business, and demonstrate regulatory compliance. A critical first step is to consult the *Safety Data Sheet (SDS)*, which outlines the liquid's properties, hazards, and safe handling procedures.

Important tips for flammable liquid safety in the workplace

Work in well-ventilated areas

Vapours from flammable liquids can accumulate and ignite if not effectively managed. Always use these substances in well-ventilated spaces to disperse vapours and reduce ignition risks.

- For example, a Cape Town automotive shop avoided a potential fire by installing extraction fans in its paint booth, ensuring vapours were safely removed.
- Keep flammable liquids away from open flames, sparks or heat sources, and enforce a strict no-smoking policy in work areas to eliminate ignition risks.

Label containers clearly

Proper labelling prevents confusion and accidental misuse. Every container holding flammable liquid must be clearly marked with its contents and hazard warnings, as required by the OHS Act.

- A Johannesburg factory recently averted disaster when a worker noticed a mislabeled container of acetone and reported it, preventing a dangerous mix-up.
- Regularly inspect labels to ensure they remain legible and comply with SDS recommendations.

Equip workers with PPE

- Personal Protective Equipment (PPE) is essential to shield workers from spills, splashes, or vapour exposure. Provide safety goggles, flame-resistant gloves, and protective clothing, as specified in the SDS for each liquid.
- Training employees in proper PPE use is equally important. For instance, a Durban chemical plant reduced workplace injuries by 30% after implementing mandatory PPE training, ensuring workers were prepared to manage flammable liquids safely.

Store safely in approved cabinets and segregate as required

- Store flammable liquids in fire-resistant cabinets designed to contain fires and comply with South African OHS standards. These cabinets should be locked and well-ventilated.
- Additionally, segregate flammable liquids from oxidisers, acids or other reactive substances to prevent chemical reactions. Use grounding and bonding techniques during transfers to avoid static electricity sparks. A Pretoria warehouse exemplified this by reorganising its storage area to separate flammable liquids from other chemicals, significantly reducing its risk profile.

Prepare for spills and maintain temperature control

Accidents happen, but preparedness can mitigate risks. Maintain spill kits with absorbent materials and train staff to respond swiftly to leaks.

- Store flammable liquids in cool, shaded areas to prevent vapour pressure build-up, avoiding direct sunlight or heat sources.
- Regular inspections of storage areas can detect leaks early. A Bloemfontein factory implemented weekly inspections and spill drills, which proved invaluable when a minor fuel spill was contained without incident.

Conclusion

Compliance with the OHS Act and General Safety Regulations is non-negotiable for South African businesses. Proper management of flammable liquids is key to protecting employees, avoiding costly penalties, and maintaining a compliant and safe workplace.

Implementing effective safety protocols not only mitigates risks but also demonstrates your commitment to legal compliance and responsible business operations. Ensuring that your procedures align with regulations helps you avoid non-compliance penalties while fostering a culture of workplace safety. Regular OHS audits are key to identifying gaps in flammable liquid management—such as improper storage, insufficient labelling, or inadequate employee training—and provide actionable insights to improve your safety systems.

SERR Synergy provides Occupational Health and Safety solutions for businesses across all industries, with a strong focus on regulatory compliance. We offer expert guidance, workplace audits, tailored safety systems, *COIDA registration*, risk assessments, and mandatory training to help your business meet its OHS obligations. Contact us today to find out how we can help your business become and remain legally compliant.

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