

SOP

STANDARD OPERATING PROCEDURE

THERMAL FOGGING USING TYPHOONDUO CONCENTRATE WITH SUNDEW PROFOG

This Standard Operating Procedure sets out the minimum requirements for the safe, effective and compliant use of Sundew TyphoonDUO Concentrate with Sundew PROFOG Thermal Fogging Agent using approved thermal fogging equipment.

All treatments must be conducted in accordance with the product label, SDS site-specific risk assessment, applicable legislation and Sundew best practice.

THE PRODUCT LABEL AND SDS TAKE PRECEDENCE OVER THIS SOP.



SAFE
Protect people,
property and
the environment



EFFECTIVE
Target pests
thoroughly and
efficiently



COMPLIANT
Follow the label
directions and
legal requirements



PROFESSIONAL
Operate to the
highest industry
standards



READ THIS SOP, THE PRODUCT LABEL AND SDS BEFORE USE AND FOLLOW ALL DIRECTIONS.

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Sundew SOP – Thermal Fogging Using TyphoonDUO Concentrate with Sundew PROFOG

1. Purpose

This Standard Operating Procedure sets out the minimum requirements for the safe, effective and compliant use of **Sundew TyphoonDUO Concentrate** with **Sundew PROFOG Thermal Fogging Agent** through approved thermal fogging equipment.

The purpose of this SOP is to ensure that all thermal fogging treatments are conducted in accordance with the approved product label, Safety Data Sheet, site-specific risk assessment, applicable pesticide legislation, WHS requirements and Sundew best practice.

2. Scope

This SOP applies to professional pest management operators using TyphoonDUO Concentrate with Sundew PROFOG for thermal fogging treatments in approved situations, including but not limited to warehouses, factories, kitchens, industrial buildings, domestic residences, agricultural buildings, commercial and industrial areas, and other situations listed on the approved Directions for Use.

This SOP does not override the product label. Where there is any inconsistency, the approved APVMA label and SDS take precedence.

3. Products and Equipment

3.1 Product system

- Sundew TyphoonDUO Concentrate Thermal Fogging & Misting with Natural Pyrethrin
- Sundew PROFOG Thermal Fogging Agent
- Approved thermal fogging machine equipment
- Measuring cylinder or calibrated dosing equipment
- Suitable chemical-resistant mixing container

- Spill kit
- Warning signage and exclusion barriers
- Application record form

3.2 Product compatibility

TyphoonDUO must only be used for thermal fogging in accordance with its approved label directions. For optimal fog quality, stability and performance, **TyphoonDUO** is to be used with **Sundew PROFOG Thermal Fogging Agent** as the dedicated Sundew thermal fogging carrier.

Do not mix TyphoonDUO with diesel, kerosene, mineral oil or unapproved fogging carriers unless expressly permitted by the approved product label and Sundew technical documentation.

4. Responsibilities

4.1 Operator

The operator is responsible for:

- Holding all required pest management licences or authorisations.
- Reading and understanding the product label and SDS before use.
- Conducting a site-specific risk assessment before treatment.
- Ensuring the site is prepared and evacuated as required.
- Applying the product only in approved situations and at approved rates.
- Preventing exposure to people, pets, livestock, food, water, fish, bees and sensitive environments.
- Completing treatment records.

4.2 Supervisor or Business Owner

The supervisor or business owner is responsible for:

- Ensuring operators are trained and competent in thermal fogging.
- Maintaining equipment in safe working condition.
- Ensuring SDS, labels and emergency procedures are available.
- Reviewing treatment records and incident reports.

- Ensuring compliance with state and territory pesticide and WHS requirements.

5. Pre-Treatment Assessment

Before any thermal fogging treatment, the operator must complete a documented site assessment.

The assessment must include:

- Target pest or pests.
- Treatment objective.
- Site type and approved use pattern.
- Building layout and treatment volume.
- Presence of people, pets, livestock, fish tanks, aquariums, birds, reptiles or other animals.
- Presence of exposed food, food-contact surfaces, utensils, packaging or processing equipment.
- Smoke detectors, fire alarms, and sprinkler systems (see Point 18 below).
- Ventilation points, air-conditioning systems, fans and extraction systems.
- Nearby waterways, drains, ponds, aquaculture, sensitive vegetation or bee activity.
- Weather conditions for outdoor or semi-enclosed treatments.
- Re-entry requirements.
- Any site-specific hazards.

Thermal fogging must not proceed if the operator cannot control the risk of exposure, drift, fire, contamination or off-target movement.

6. Site Preparation

Before fogging, the operator must ensure that:

- All people not involved in the application have vacated the treatment area.
- Animals and pets are removed from the treatment area.
- Fish tanks, aquariums, ponds and aquatic systems are removed, covered or isolated.

- Exposed foodstuffs are removed or covered.
- Dishes, utensils and food preparation surfaces are removed or covered.
- Open food and water containers for animals are removed or covered.
- Air-conditioning, fans and ventilation systems are managed to prevent unintended spread.
- Smoke detectors or alarms are managed in accordance with site procedures and fire safety requirements.
- Ignition sources are controlled where relevant to the fogging equipment and site conditions.
- Warning signs and exclusion controls are placed at entry points.
- The client or site representative understands exclusion and re-entry requirements.

7. PPE Requirements

Operators must wear PPE in accordance with the product label, SDS and risk assessment.

As a minimum, operators should have access to:

- Chemical-resistant gloves.
- Protective coveralls or long-sleeved protective clothing.
- Eye protection.
- Respiratory protection suitable for pesticide mist, fog or aerosol exposure where required by the SDS or risk assessment.
- Chemical-resistant footwear.
- Hearing protection if required by equipment noise level.

PPE must be inspected before use, correctly fitted, cleaned or disposed of after use, and stored to prevent contamination.

8. Mixing Procedure

1. Read the TyphoonDUO label, PROFOG directions and SDS before mixing.
2. Confirm the approved application rate and mixing ratio for the intended use.
3. Use clean, calibrated measuring equipment.

4. Prepare only the quantity required for the job.
5. Add the required quantity of Sundew PROFOG to the mixing container or fogger tank.
6. Add the required quantity of TyphoonDUO Concentrate.
7. Mix gently and thoroughly to achieve a uniform solution.
8. Avoid splashing, spills and inhalation of vapour or aerosol.
9. Securely close all containers immediately after use.
10. Clearly identify the mixed solution and use it only for the intended treatment.

Do not eat, drink or smoke while handling, mixing or applying chemical products.

9. Application Procedure

1. Confirm the site is vacant and exclusion controls are in place.
2. Confirm all food, utensils, animals, aquatic systems and sensitive items have been removed, covered or protected.
3. Confirm the fogging equipment is clean, functional and suitable for use.
4. Start the fogging equipment in accordance with the manufacturer's instructions.
5. Apply fog evenly throughout the approved treatment area.
6. Direct fog into harbourage areas, voids, cracks, crevices and inaccessible spaces where target pests may shelter, where label directions permit.
7. Avoid over-application, pooling, wetting of surfaces or contamination of non-target areas.
8. Do not fog directly onto exposed food, food-contact surfaces, animals, fish tanks, aquariums, water bodies or flowering plants where bees are foraging.
9. Maintain awareness of fog movement at all times.
10. Stop application immediately if uncontrolled drift, equipment malfunction, exposure risk, fire risk or other unsafe condition occurs.

10. Post-Treatment Procedure

After treatment:

- Keep the treated area closed for the required holding period, if specified by the label or site procedure.

- Do not allow re-entry until the fog or spray mist has fully dissipated.
- Ventilate treated areas thoroughly before normal use resumes.
- Ensure food preparation, processing or serving areas are cleaned before use resumes.
- Confirm the site is safe before handover.
- Advise the client or site representative of re-entry, ventilation, cleaning and safety requirements.
- Remove warning signs only when the area is suitable for re-entry.

11. Environmental Protection

TyphoonDUO contains pyrethrins and must be managed to prevent environmental contamination.

Operators must:

- Prevent contamination of wetlands, drains, waterways and watercourses.
- Remove or cover fishponds, aquariums and aquatic systems before treatment.
- Avoid application where fog may drift to water bodies.
- Avoid treatment of flowering plants while bees are foraging.
- Remove animals and pets from treatment areas before application.
- Clean up thoroughly before allowing animals to re-enter.
- Dispose of waste and containers in accordance with the label, SDS and local requirements.

12. Re-Entry Requirements

No person, animal or pet may re-enter the treated area until:

- All visible fog or mist has dissipated.
- The area has been adequately ventilated.
- Any required cleaning has been completed.
- The operator has determined that re-entry is safe.
- Any label-specific re-entry requirement has been satisfied.

Where uncertainty exists, extend the exclusion period and ventilate further.

13. Equipment Cleaning and Maintenance

After use:

- Empty the fogger safely in accordance with label and SDS requirements.
- Do not dispose of undiluted chemical on site.
- Rinse equipment as directed.
- Add rinsate to the application tank only where appropriate and lawful.
- Inspect equipment for leaks, blockages, damaged seals or unsafe operation.
- Store equipment clean, dry and secure.
- Record any equipment faults or maintenance requirements.

14. Spill and Incident Response

In the event of a spill, exposure, uncontrolled drift, fire, equipment failure or complaint:

1. Stop work immediately if safe to do so.
2. Isolate the area.
3. Wear appropriate PPE.
4. Prevent chemical from entering drains, waterways or sensitive areas.
5. Contain and collect spilled material using the spill kit.
6. Follow the SDS emergency instructions.
7. Notify the supervisor and site representative.
8. Seek medical advice if exposure occurs.
9. Record the incident.
10. Report to the relevant authority if required.

15. Records

For each treatment, the operator must complete an application record including:

- Client name and site address.
- Date of treatment.
- Start and finish time.

- Target pest.
- Product name.
- Batch number.
- Rate and quantity used.
- Mixing ratio.
- Method of application: thermal fogging.
- Specific treatment areas.
- Operator name and licence number.
- Supervisor name and licence number, if applicable.
- Weather conditions where relevant.
- Re-entry instructions.
- Precautions provided to the client.
- Any incidents, complaints or deviations.
- Operator signature.

Records must be retained for the period required by the applicable state or territory legislation.

16. Training and Competency

Only trained and competent operators may conduct thermal fogging using TyphoonDUO and Sundew PROFOG.

Training should include:

- Product label and SDS interpretation.
- Thermal fogging principles.
- Equipment operation.
- Mixing and dosing.
- Site risk assessment.
- PPE selection and use.
- Fire and ignition risk controls.
- Environmental protection.

- Re-entry and ventilation requirements.
- Spill and incident response.
- Record keeping.

17. Critical Control Points

Thermal fogging must not proceed unless the following controls are confirmed:

- Correct product and approved use pattern.
- Correct mixing ratio and application rate.
- Site evacuated and secured.
- Food, utensils and food-contact surfaces removed or covered.
- Animals, pets, fish tanks and aquariums removed or protected.
- Sensitive environmental areas protected.
- Fogging equipment inspected and safe.
- PPE worn correctly.
- Re-entry and ventilation plan confirmed.
- Application record completed.

18. Critical Control Point – Fire Detection and Emergency Services

Sundew Best Practice

Thermal fogging generates a visible aerosol that may activate smoke detection systems or be mistaken for smoke by occupants or members of the public. Although there is no general legislative requirement in Australia for pest management operators to notify the local fire service before conducting thermal fogging treatments, it is recognised industry best practice to assess the potential for unintended emergency responses before commencing work.

Where thermal fogging is to be undertaken in commercial, industrial, public or high-profile premises, operators should determine whether notification of the building manager, alarm monitoring company, security provider or local fire communications centre is appropriate. Early notification can help prevent unnecessary emergency call-outs, minimise disruption to site operations and ensure that fire detection systems are appropriately managed throughout the treatment.

The following critical control measures shall be implemented prior to commencing any thermal fogging operation.

Before any thermal fogging treatment is undertaken, the operator must determine whether the treatment area contains smoke detectors, thermal detectors, beam detectors, aspirating smoke detection systems, fire indicator panels, sprinkler systems, monitored alarm systems or any other fire detection or emergency response system.

Where fire detection or alarm systems are present, thermal fogging must not commence until the operator has confirmed that the building owner, site representative, building manager or authorised fire services contractor has assessed the risk of alarm activation and implemented appropriate controls.

Where required by the site procedure, building management, fire services contractor, alarm monitoring company or relevant authority, the local fire service or alarm monitoring centre must be notified before treatment begins.

The operator must record:

- the person responsible for authorising any alarm isolation;
- the time the system was isolated or placed into test/maintenance mode;
- the areas affected by the isolation;
- any notification made to the alarm monitoring company or fire service;
- the time the system was reinstated; and
- the name of the person confirming reinstatement.

Fire detection or alarm systems must only be isolated by an authorised person. Pest management operators must not disable, cover, isolate or interfere with fire detection systems unless they are specifically authorised and competent to do so.

Thermal fogging must not proceed if fire detection, alarm activation, emergency response, ignition or building evacuation risks cannot be adequately controlled.

All isolated, covered or disabled fire safety systems must be reinstated immediately after treatment and before the site is returned to normal occupancy.

19. Review

This SOP must be reviewed:

- At least annually.

- When the product label or SDS changes.
- After any incident or complaint.
- When equipment or application methods change.
- When legislation or Sundew technical guidance changes.
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