NatureMalta.com Preliminary Environmental Impact Assessment

Reported impacts of the 1 June 2026 fireworks factory explosion in the Naxxar / Magħtab / Salina area, Malta

Purpose of this Assessment

The purpose of this NatureMalta.com Preliminary Environmental Impact Assessment is to record, organise and assess the reported environmental, animal welfare, public safety and local damage impacts of the 1 June 2026 fireworks factory explosion in the Naxxar / Magħtab / Salina area.

The assessment is intended to provide a clear public record of the reported impacts, identify potential environmental risks requiring further investigation, and highlight the need for appropriate cleanup, monitoring, animal welfare follow-up and regulatory review.

This document is not a statutory Environmental Impact Assessment and does not replace any official investigation, enforcement process, scientific sampling programme, veterinary assessment, structural survey or competent authority report. It is a preliminary public-interest assessment based on reported news accounts and limited external visual inspection evidence gathered from publicly accessible areas up to the police cordon on 9 June 2026.

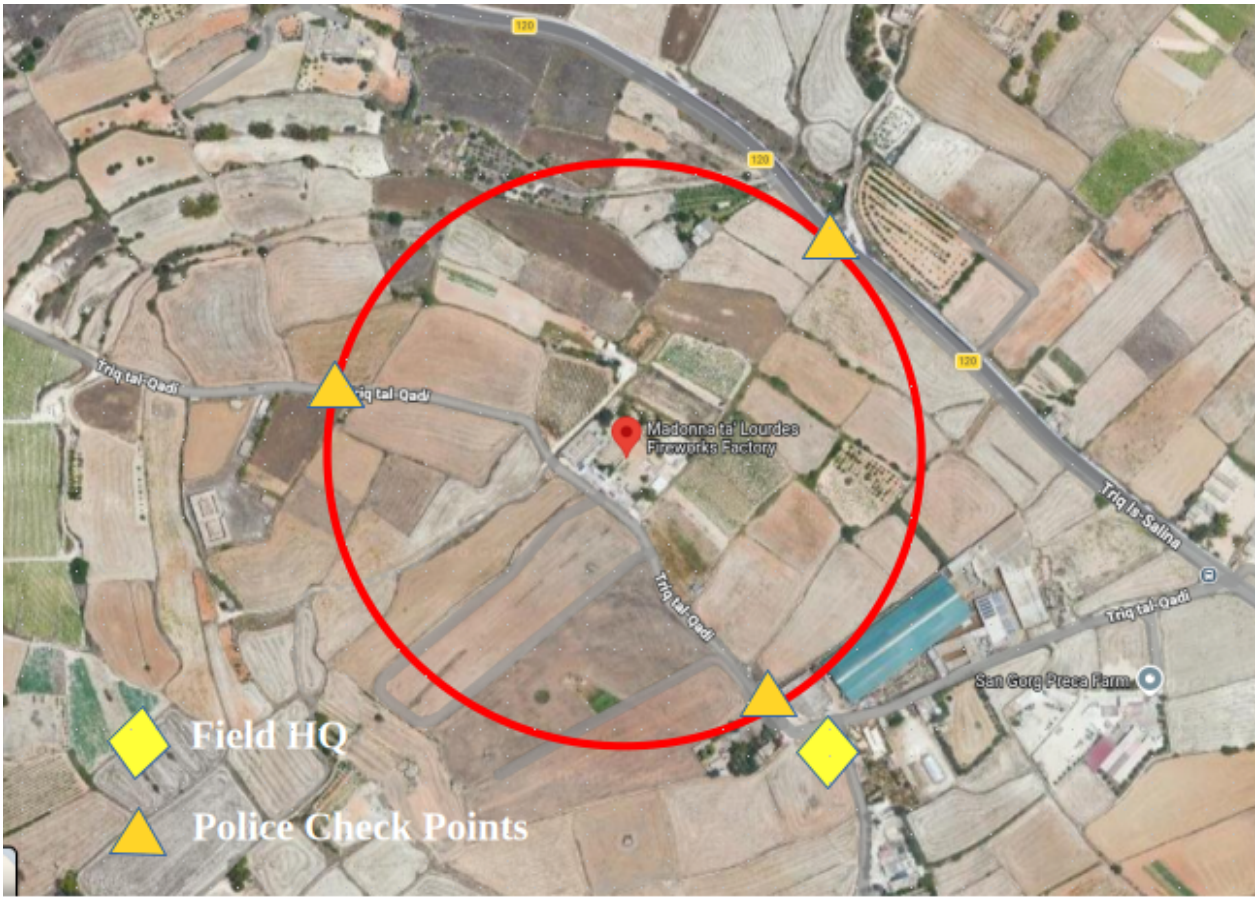

Figure 1: Location map showing the reported explosion area, surrounding Naxxar / Magħtab / Salina context, nearby roads, affected receptors, and approximate external observation area.

1. Executive Summary

This preliminary Environmental Impact Assessment considers the reported environmental, animal welfare, public safety and local damage impacts of the fireworks factory explosion that occurred in the Naxxar / Magħtab / Salina area on 1 June 2026.

This assessment is based on reported news accounts, together with a limited external visual inspection carried out on 9 June 2026 from publicly accessible areas up to the police cordon. Photographic evidence was collected showing visible blast damage and material dispersal. No access was available within the restricted inner area, estimated at approximately 200–250 metres from the explosion site, and the assessment does not rely on internal site inspection, laboratory testing, official environmental sampling, veterinary records, insurance reports, or unpublished official evidence.

News reports described a powerful explosion at the Lourdes / Ta' Lourdes Fireworks Factory, followed by secondary explosions, a large smoke plume, damage to properties and farms, injuries or shock to people nearby, animal deaths, and disruption across the surrounding area. Reported affected receptors included farms, livestock, birds, rabbits, businesses, homes, industrial premises and BirdPark Malta.

On the basis of reported accounts, the most clearly evidenced impacts were:

- Animal deaths and distress.
- Damage to farms, homes, businesses and other premises.
- Short-term smoke, dust and air-quality disturbance.
- Debris, broken glass and physical hazards.
- Local disruption and public safety concern.
- Wider concern about the proximity of fireworks factories to farms, residences, animal facilities and rural land.

This document should be treated as a preliminary assessment of reported impacts only. A full formal Environmental Impact Assessment would require official data, environmental sampling, blast mapping, residue analysis, veterinary records, structural reports and ecological surveys.

2. Scope and Limitations

The purpose of this assessment is to summarise and assess the environmental implications of the explosion using reported news accounts.

The assessment does not confirm:

- Soil contamination.
- Groundwater contamination.
- Chemical residue levels.
- Perchlorate contamination.
- Heavy metal deposition.

- Long-term ecological damage.
- Full wildlife mortality.
- Complete blast-radius damage.
- Official cause or liability.

These issues may be relevant to a fireworks factory explosion, but they cannot be presented as confirmed impacts without official investigation results or laboratory testing.

3. Incident Description

On 1 June 2026, a major explosion occurred at the Lourdes / Ta’ Lourdes Fireworks Factory in the Naxxar / Magħtab / Salina area. News reports described a powerful initial blast, followed by smaller explosions and a visible smoke plume.

The explosion was reportedly heard and felt across parts of Malta. Reports stated that the incident damaged nearby buildings, farms and businesses, and caused injuries or shock to people in the surrounding area. Animal deaths were also reported, including livestock and birds.

The reported damage radius extended beyond the immediate factory site, with accounts of damage to homes, farms, business premises and industrial properties. This indicates that the event had wider local environmental and community effects rather than being confined to the fireworks factory itself.

4. Environmental Baseline

The affected area is a mixed rural, semi-industrial and residential landscape. It includes:

- Agricultural land and farms.
- Livestock and animal holdings.
- Breeders and animal facilities.
- Nearby homes and businesses.
- Industrial premises.
- Roads and public access routes.
- Open land typical of the Magħtab / Salina / Naxxar area.
- Sensitive receptors including people, animals, property and rural land.

This type of setting is environmentally sensitive because explosive incidents can affect multiple receptors at once: people, animals, structures, air quality, soil, water, agricultural land and local biodiversity.

5. Key Reported Receptors

5.1 People

Reports stated that people in the surrounding area were affected, including individuals who were treated for shock or minor injuries. The human receptor impact included blast shock, possible exposure to smoke and dust, property damage, and psychological distress.

5.2 Farms and Livestock

Farms were among the reported affected receptors. News accounts referred to damage to farms and deaths of animals, including dairy cows and rabbits. This indicates a rural and agricultural impact, not only an industrial-site impact.

5.3 Birds and Captive Animals

Bird deaths were reported, including at BirdPark Malta and other bird or animal holdings in the area. BirdPark Malta was one affected premises, but the wider reported animal impact also included farms and breeders.

5.4 Homes and Residential Areas

Homes within the wider blast area were reportedly damaged, including broken windows and other structural effects. Residential receptors are important because they indicate the explosion had a community-level impact.

5.5 Businesses and Industrial Premises

Reports described damage to businesses and industrial properties, including broken windows and blast-related damage. This shows that the impact extended into commercial and industrial areas beyond the fireworks factory.

5.6 Air, Dust and Smoke

The explosion created a visible smoke plume and likely generated dust and airborne debris. The reported smoke and blast effects indicate a short-term air-quality event.

5.7 Land, Debris and Waste

Reports of damaged buildings, broken glass, debris and structural damage indicate that the incident created physical waste and debris hazards across the surrounding area.

6. Impact Assessment

6.1 Animal Welfare Impact

The animal welfare impact is assessed as **major adverse** based on reported news accounts.

Reported deaths included birds, rabbits and dairy cows. Animals are highly vulnerable to sudden blast pressure, explosive noise, flying debris, structural collapse, enclosure damage and panic behaviour.

Likely mechanisms of harm, based on the type of incident and reported outcomes, include:

- Direct trauma from blast pressure or debris.
- Panic, collision or crushing injuries.
- Shock-related death or injury.
- Escape or displacement from damaged enclosures.
- Respiratory stress from smoke or dust.
- Ongoing stress after the incident.

The reported animal deaths mean the incident should be treated as a serious animal welfare event. The affected animals were not limited to one location; reports refer to farms, breeders, livestock and birds in the wider area.

6.2 Agricultural and Rural Impact

The agricultural and rural impact is assessed as **moderate to major adverse**.

Reports of farm damage and livestock deaths indicate that the explosion affected rural livelihoods and animal holdings. Damage to farms can have several environmental and operational consequences:

- Loss of animals.
- Damage to animal housing.
- Damage to feed storage areas.
- Damage to fencing, gates, walls or agricultural structures.
- Risk of debris in fields or animal areas.
- Temporary disruption to farming activity.
- Need for cleanup and repairs before safe use resumes.

Where animals, feed, water troughs or open fields were exposed to smoke, dust or debris, further inspection would be appropriate.

6.3 Public Safety and Community Impact

The public safety impact is assessed as **major adverse**.

The explosion was reportedly heard and felt over a wide area, caused injuries or shock, damaged property, and generated concern among nearby residents and workers. The presence of homes, farms, roads, businesses and animal facilities near the blast area increases the significance of the incident.

Public safety impacts include:

- Immediate danger from blast pressure.
- Flying debris and broken glass.
- Secondary explosions.

- Smoke exposure.
- Road disruption or emergency access issues.
- Psychological distress.
- Damage to homes and workplaces.

A fireworks factory explosion in a populated or mixed-use area creates risks that extend beyond the licensed site itself.

6.4 Built Environment and Property Damage

The built environment impact is assessed as **major adverse** in the local area.

Reported damage included homes, farms, businesses and industrial premises. Damage to buildings and structures is environmentally relevant because it creates waste, debris, hazards and repair needs. Broken glass and damaged materials can also pose risks to animals and people.

Reported damage suggests the need for:

- Structural inspections.
- Safe removal of broken glass and debris.
- Repair of animal housing and farm structures.
- Checks for asbestos or other hazardous building materials if older structures were damaged.
- Proper disposal of contaminated or hazardous waste, if present.

6.5 Air Quality, Smoke and Dust

The air-quality impact is assessed as **short-term moderate to major adverse**, based on reported smoke and blast effects.

News reports described a visible plume of smoke following the explosion. Fireworks explosions can release smoke, fine particles and combustion residues. However, the exact composition and concentration of airborne pollutants cannot be confirmed without monitoring data.

Potential short-term air-quality impacts include:

- Smoke inhalation risk.
- Dust and particulate exposure.
- Odour and combustion products.
- Irritation to people and animals.
- Deposition of soot or residues on nearby surfaces.

The greatest risk would have occurred during and immediately after the explosion, especially downwind of the incident.

6.6 Debris, Broken Glass and Physical Hazards

The debris impact is assessed as **major adverse** locally.

Reported damage to windows, buildings, farms and business premises indicates that debris and broken glass were significant hazards. Physical debris can affect:

- Roads and public access.
- Farms and animal enclosures.
- Homes and gardens.
- Industrial premises.
- Open land.
- Animal feed and water areas.

Debris hazards are especially important where animals are present, because animals may step on, ingest or become trapped by debris. Safe cleanup should therefore prioritise animal areas, farms, access routes and public spaces.

6.7 Soil and Land Contamination Risk

The soil and land contamination risk is assessed as **potentially moderate adverse**, but not confirmed by the cited reports.

A fireworks factory explosion can scatter burnt and unburnt pyrotechnic material, ash, casing fragments, metals, oxidising compounds and other residues. If these residues settle on soil, fields or animal areas, they may create contamination risks.

However, reported news accounts do not appear to confirm laboratory-tested soil contamination. Therefore, this should be treated as a potential risk requiring investigation rather than a confirmed impact.

Recommended follow-up would include:

- Mapping debris distribution.
- Sampling soil close to the blast site.
- Sampling soil in farms and animal areas where debris fell.
- Testing for pyrotechnic residues, metals and oxidising compounds.
- Recording whether rainfall occurred after the incident, because rain can mobilise residues.

6.8 Water and Groundwater Risk

The water impact is assessed as **potentially moderate adverse**, but not confirmed by reported news accounts.

Fireworks materials may contain soluble chemical residues that can be mobilised by rain, wash water or firefighting water. In Malta, water resources are sensitive, and contamination pathways should be taken seriously.

Potential pathways include:

- Rain washing residues into soil.
- Cleanup water entering drains.

- Contaminated debris stored outdoors.
- Residues entering animal water containers or ponds.
- Runoff from damaged areas.

No confirmed water contamination should be claimed unless official testing exists. However, given the type of incident, water and residue testing would be a reasonable precaution.

6.9 Wildlife and Biodiversity

The wildlife impact is assessed as **potentially moderate adverse**, but only limited impacts are confirmed through reported animal deaths.

Reported accounts confirm deaths of animals and birds, but they do not provide a full ecological survey of wild birds, reptiles, mammals or invertebrates in the surrounding area.

Possible wildlife effects include:

- Disturbance from blast noise.
- Displacement from nearby habitat.
- Nest abandonment if breeding wildlife was present.
- Injury from debris.
- Short-term avoidance of the area.
- Exposure to smoke or dust.

A formal ecological assessment would be needed to determine whether protected species or habitats were affected.

6A. Fireworks Materials, Chemical Residues and Potential Contamination Risks

Fireworks are pyrotechnic devices made from mixtures of fuels, oxidisers, binders, colour-producing compounds, explosive or propellant powders, fuses, paper or cardboard casings, and other additives. In ordinary firework displays, many of these materials are burned in a controlled sequence. In a fireworks factory explosion, however, materials may burn incompletely, detonate, fragment, disperse as dust, or be scattered as unburnt or partially burnt residues.

This section does not confirm that any particular chemical was present or released in harmful quantities during the 1 June 2026 explosion. It identifies known chemicals and residue types commonly associated with fireworks and pyrotechnic materials, and explains why post-incident environmental testing would be appropriate.

6A.1 Typical Fireworks Components

Fireworks may contain several broad groups of materials:

1. **Oxidisers**
   These provide oxygen for rapid burning. Common oxidisers in pyrotechnics may include perchlorates, chlorates and nitrates. Perchlorate salts, including potassium perchlorate and

ammonium perchlorate, are especially relevant because they are associated with fireworks and are soluble and mobile in water.

2. **Fuels**
   Fuels provide the energy for combustion. These may include charcoal, sulphur, aluminium powder, magnesium, magnalium, titanium, iron, organic fuels and other combustible materials.
3. **Black powder / gunpowder-type mixtures**
   Traditional firework propellant and bursting charges may include potassium nitrate, charcoal and sulphur. These materials can generate smoke, sulphur compounds, particulates and combustion residues.
4. **Colour-producing metal salts**
   Firework colours are produced by heating metal compounds. Common examples include strontium compounds for red, barium compounds for green, copper compounds for blue, sodium compounds for yellow, calcium compounds for orange, and magnesium, aluminium or titanium for white flashes or sparks.
5. **Binders and stabilisers**
   Firework stars and pellets may include binders such as dextrin or other organic materials to hold chemical mixtures together.
6. **Chlorine donors and other additives**
   Some firework mixtures use chlorine-containing compounds to improve colour production, especially for colours such as blue and green.
7. **Casings and packaging**
   Fireworks usually include paper, cardboard, plastics, adhesives, strings, fuses and packaging materials. In an explosion, these may become scattered waste and debris.

6A.2 Perchlorates and Oxidising Compounds

Perchlorates are among the most environmentally important fireworks-related chemicals. They are used in pyrotechnics because they provide oxygen for rapid combustion. Perchlorate is highly soluble in water and can move through surface water, soil water and groundwater.

Potential environmental concerns include:

- Contamination of soil and dust.
- Movement into runoff after rainfall.
- Movement into groundwater or water storage systems.
- Contamination of ponds, troughs, drains, wells or nearby water bodies.
- Persistence in water because perchlorate does not easily break down under ordinary environmental conditions.

Potential human and animal health concerns include disruption of iodine uptake by the thyroid gland. The thyroid is important for metabolism, growth and development. Developing animals, pregnant animals, infants and children may be of particular concern where exposure is sustained.

In the context of the Malta explosion, perchlorate contamination should not be assumed without testing. However, because fireworks-derived perchlorate has been studied as an environmental issue in Malta, soil, dust and water testing would be a reasonable precaution after a major fireworks factory explosion.

6A.3 Metals and Metal Salts

Fireworks commonly use metals and metal salts to produce colours, sparks, flashes and effects. Potentially relevant metals include:

- **Barium** — used for green colours.
- **Strontium** — used for red colours.
- **Copper** — used for blue colours.
- **Sodium** — used for yellow colours.
- **Calcium** — used for orange colours.
- **Aluminium** — used for bright flashes, sparks and explosive effects.
- **Magnesium** — used for bright white light.
- **Titanium** — used for sparks.
- **Iron** — used for gold sparks.
- **Potassium** — associated with oxidisers and propellant residues.
- **Zinc, antimony, lead, arsenic, cadmium or other trace metals** — may occur in some pyrotechnic residues, impurities, older materials, smoke, dust, contaminated debris or associated burning materials.

The environmental risk from these metals depends on their chemical form, concentration, amount released, particle size, weather conditions, deposition area and whether they enter soil, water, animal feed or inhalable dust.

Potential impacts include:

- Deposition of metal-containing dust on soil, vegetation, buildings, farms and animal enclosures.
- Inhalation of fine metal-containing particles by people and animals.
- Contamination of animal feed, water bowls, ponds or troughs.
- Soil accumulation in areas receiving heavy deposition.
- Toxic effects on aquatic life if residues enter water bodies.
- Plant stress or soil-quality effects if contamination is significant.

A single incident may produce a short-term pulse of contamination, while repeated fireworks activity may create cumulative residue loading. After a factory explosion, the risk may be different from an ordinary display because stored material can be scattered or incompletely burned.

6A.4 Fine Particulate Matter, Smoke and Combustion Products

Fireworks can produce fine particulate matter, smoke, soot and combustion gases. Fine particles are important because they can be inhaled deeply into the lungs.

Potential air pollutants from fireworks-related combustion include:

- Fine particulate matter.
- Sulphur dioxide.
- Carbon monoxide.
- Carbon dioxide.
- Nitrogen oxides.
- Metal-containing particles.
- Chlorine-containing particles or gases.
- Soot and ash.
- Unburnt or partly burnt pyrotechnic residues.

Potential effects on people include:

- Eye, nose and throat irritation.
- Coughing or breathing difficulty.
- Aggravation of asthma or chronic respiratory disease.
- Increased risk for vulnerable groups such as children, elderly people, pregnant people and those with heart or lung disease.
- Short-term exposure to smoke and dust after the blast.

Potential effects on animals include:

- Respiratory irritation.
- Stress, panic or disorientation.
- Increased risk to birds because of sensitive respiratory systems.
- Irritation or contamination of feathers, fur, skin, feed and water.
- Greater risk to confined animals unable to move away from smoke or dust.

The reported smoke plume after the explosion indicates that a short-term air-quality event occurred. However, the exact pollutants and concentrations would require monitoring or sampling data.

6A.5 Soil, Vegetation and Agricultural Land Risks

Fireworks residues may settle onto soil and vegetation. In a rural or semi-rural area, this is relevant because residues can fall on fields, animal areas, crops, feed storage, trees, gardens and open land.

Potential risks include:

- Metal-containing dust on soil and vegetation.

- Perchlorate or nitrate residues entering soil water.
- Sharp debris and fragments in fields.
- Contamination of animal grazing or feeding areas.
- Contaminated dust entering farm buildings.
- Wash-off after rain into low-lying land or drains.
- Potential effects on plant growth if contamination is locally significant.

The most important follow-up would be systematic sampling rather than assumption. Sampling should compare areas close to the blast with control areas outside the affected zone.

6A.6 Water, Runoff and Groundwater Risks

Water contamination is a key concern after any pyrotechnic incident because some firework residues are water-soluble. Rain, cleaning water or firefighting water may carry residues from roofs, yards, fields, roads, damaged structures and debris piles into drains, soil or water storage systems.

Potential pathways include:

- Rainfall washing residues into soil.
- Runoff carrying residues into drains.
- Contaminated cleaning water entering the environment.
- Residues entering ponds, troughs, tanks or reservoirs.
- Leaching into groundwater where soil and geology allow movement.
- Debris stored outdoors being washed by rain.

Potential contaminants of concern include perchlorate, nitrate, chlorate, metals, sulphate, combustion residues and suspended solids.

For Malta, water-resource sensitivity is especially important because the island has limited freshwater resources and relies heavily on careful management of groundwater and water infrastructure. Therefore, water testing after a fireworks factory explosion would be a reasonable and proportionate precaution.

6A.7 Effects on Birds, Livestock, Wildlife and Other Fauna

Animals may be affected by fireworks chemicals and residues through several pathways:

- Inhalation of smoke or dust.
- Ingestion of contaminated feed, soil, vegetation or water.
- Contact with contaminated dust on feathers, skin or fur.
- Injury from debris or damaged structures.
- Stress from blast, noise, vibration and pressure waves.
- Escape or panic following enclosure damage.

Birds may be especially vulnerable because their respiratory systems are highly efficient and sensitive. Fine particles, smoke and chemical irritants can therefore be particularly concerning. Birds may also panic during sudden explosive events, causing collision injuries, exhaustion, nest abandonment or death.

Livestock may be affected by shock, broken structures, debris in fields, contaminated water or feed, and respiratory exposure to smoke and dust. Wildlife may be displaced from nearby habitat, especially if the explosion occurred during breeding or nesting periods.

The reported deaths of birds, rabbits and dairy cows show that the incident had a serious animal welfare dimension. Chemical exposure is not confirmed from the news reports, but the nature of fireworks materials means it should be considered during post-incident investigation.

6A.8 Effects on People

People may be affected by fireworks chemicals and explosion residues through:

- Inhalation of smoke, dust and fine particles.
- Eye, throat and skin irritation.
- Exposure to broken glass and debris.
- Contact with contaminated surfaces.
- Stress, shock and psychological trauma.
- Noise and blast pressure.
- Potential exposure to contaminated water or dust during cleanup.

People at higher risk may include emergency responders, farmers, workers, nearby residents, children, elderly people and people with asthma, heart disease or other respiratory conditions.

A key public-health concern is that fine particulate matter and metal-containing particles can remain airborne for a period after fireworks combustion, depending on weather and dispersion. Cleanup work may also re-suspend settled dust unless carried out carefully.

6A.9 Dangerous Chemicals and Contaminants of Concern

The following substances should be considered contaminants of concern after a fireworks factory explosion, subject to site-specific evidence:

Substance or group	Why it matters	Possible concern
Perchlorate	Fireworks oxidiser; soluble and mobile in water	Thyroid disruption risk; groundwater and surface-water contamination
Chlorates	Oxidising compounds	Toxicity risk; water and soil contamination risk
Nitrates	Oxidising compounds and black-powder residues	Nutrient loading; water-quality concern
Barium compounds	Green colourant	Toxicity concern if bioavailable; particulate inhalation concern
Strontium compounds	Red colourant	Environmental marker of fireworks; particulate exposure concern

Substance or group	Why it matters	Possible concern
Copper compounds	Blue colourant	Aquatic toxicity concern if entering water
Aluminium and magnesium	Fuels, flashes and sparks	Fine particulate and respiratory irritation concern
Titanium and iron	Sparks and effects	Particulate deposition and dust concern
Antimony compounds	Glitter or special effects in some pyrotechnics	Toxicity concern depending on form and exposure
Lead, arsenic, cadmium or other trace metals	May occur as contaminants, legacy materials or associated combustion residues	Toxicity, persistence and cumulative contamination concern
Sulphur compounds	Black powder and combustion	Respiratory irritation; acidifying deposition potential
Fine particulate matter	Smoke and dust from combustion	Respiratory and cardiovascular health concern
Plastic, paper, glass and casing debris	Physical debris from explosion	Injury, ingestion and waste-management concern

This table should be used to guide testing and investigation. It should not be read as proof that all listed substances were present or released at harmful concentrations in this specific incident.

6A.10 Recommended Chemical and Environmental Testing

Given the nature of the incident, the following testing would be appropriate:

1. **Soil testing**
    - Perchlorate.
    - Chlorate.
    - Nitrate.
    - Metals including barium, strontium, copper, aluminium, magnesium, potassium, zinc, lead, cadmium, arsenic and antimony.
    - pH and conductivity.
    - Combustion residues where relevant.
2. **Dust and surface wipe testing**
    - Metal-containing particles.
    - Perchlorate and oxidiser residues.
    - Soot and ash residues.
    - Dust inside damaged buildings, farms and animal enclosures.
3. **Water testing**
    - Perchlorate.
    - Chlorate.

- Nitrate.
- Metals.
- pH, conductivity and suspended solids.
- Animal drinking water, ponds, troughs, tanks, drains and runoff points.

4. **Debris testing**
    - Identification of unburnt pyrotechnic material.
    - Separation of hazardous waste from ordinary building debris.
    - Testing of ash or residue-rich debris.
5. **Biological and animal welfare monitoring**
    - Veterinary checks for respiratory irritation.
    - Monitoring of surviving animals for delayed effects.
    - Checking feed and bedding for dust or debris.
    - Recording any delayed deaths or illness.
6. **Post-rainfall follow-up**
    - Re-test runoff and low-lying areas after rainfall.
    - Inspect debris piles and cleanup zones for residue movement.
    - Check whether residues have migrated into drains or animal water sources.

6A.11 Relevance to the 1 June 2026 Explosion

For this incident, reported news accounts confirm a major explosion, smoke, debris, damage to farms and buildings, animal deaths, and wider local disruption. These reported facts are sufficient to justify concern about possible chemical residues, but they do not prove contamination.

The correct environmental position is therefore:

- Do not assume contamination without evidence.
- Do not dismiss contamination risk without testing.
- Treat fireworks-related oxidisers, metals, smoke, dust and debris as contaminants of concern.
- Carry out targeted soil, dust, water and debris sampling.
- Give priority to farms, animal areas, homes, businesses, drains, water sources and locations downwind or downslope of the explosion.
- Publish results transparently so the community can understand whether contamination occurred and whether cleanup was adequate.

7. Cumulative and Wider Environmental Issues

The explosion should also be considered in the wider context of fireworks activity in Malta.

This incident raises questions about:

- The location of fireworks factories near farms, homes, businesses and animal facilities.
- The adequacy of buffer zones.
- Emergency planning for nearby receptors.
- Animal welfare planning around high-risk explosive sites.
- Environmental monitoring after pyrotechnic incidents.
- Public transparency after major accidents.
- The cumulative effects of fireworks-related smoke, noise and residues.

Although this assessment is based on reported accounts only, the reported scale of the explosion and the range of affected receptors suggest that fireworks infrastructure can create environmental risks beyond the factory boundary.

8. Mitigation and Follow-up Measures

Based on reported impacts, the following actions would be appropriate.

8.1 Immediate Safety and Cleanup

- Secure the blast area and affected debris fields.
- Remove broken glass and sharp debris from public areas, farms and animal enclosures.
- Inspect damaged buildings and farm structures.
- Identify any unexploded or partially exploded pyrotechnic material.
- Prevent public or animal access to unsafe areas.
- Ensure cleanup waste is separated and disposed of correctly.

8.2 Animal Welfare Response

- Record all reported animal deaths and injuries.
- Provide veterinary checks for surviving affected animals.
- Inspect livestock housing, cages, aviaries, fencing and shelters.
- Check feed and water containers for debris or contamination.
- Search for escaped or displaced animals.
- Monitor surviving animals for delayed stress effects.

8.3 Environmental Monitoring

- Map the blast and debris radius.

- Sample soil in areas where residues or debris were deposited.
- Sample water sources, drains, animal ponds and water containers where relevant.
- Test for pyrotechnic residues, metals and oxidising chemicals where appropriate.
- Reinspect the area after rainfall.
- Keep a public record of cleanup and testing results.

8.4 Community and Property Recovery

- Support affected farmers, residents and businesses with damage reporting.
- Provide clear public information on safety precautions.
- Record damage to homes, farms, businesses and animal facilities.
- Review whether emergency access and warning systems worked effectively.

8.5 Regulatory Review

- Review fireworks factory licensing and inspection arrangements.
- Review buffer zones around fireworks factories.
- Assess whether nearby farms, homes, businesses and animal facilities are adequately protected.
- Require environmental response plans for pyrotechnic sites.
- Require clear post-incident environmental testing procedures after major explosions.

9. Residual Impacts

Even after cleanup and repairs, residual impacts may remain.

These may include:

- Permanent animal losses.
- Long-term stress in surviving animals.
- Financial losses to farms, businesses and affected premises.
- Repair costs for damaged structures.
- Public concern about fireworks factory safety.
- Possible undetected residues if environmental testing is not carried out.
- Reduced confidence in existing planning and safety controls.

Residual impacts should therefore be considered significant unless official investigation and environmental testing demonstrate otherwise.

10. Conclusion

Based on reported news accounts, the 1 June 2026 fireworks factory explosion in the Naxxar / Magħtab / Salina area caused a serious local environmental, animal welfare, public safety and property damage incident.

The confirmed reported impacts include animal deaths, damage to farms, homes, businesses and other structures, smoke, debris, blast disturbance, and injuries or shock to people nearby. The incident affected multiple receptors across a mixed rural, residential and commercial area.

BirdPark Malta was one affected location, but the environmental significance of the incident is broader. The wider reported impacts on farms, livestock, birds, businesses, homes and public safety show that this was not only damage to a single premises.

A full formal Environmental Impact Assessment would require official evidence, site inspection, laboratory testing, veterinary records, structural assessments and ecological surveys. In the absence of those records, the responsible position is to treat soil contamination, water contamination and long-term ecological effects as potential risks requiring investigation, not as confirmed facts.

The incident highlights the need for stronger environmental monitoring, animal welfare planning, emergency preparedness and safety review around fireworks factories located near farms, homes, businesses and sensitive animal facilities.

Photographic Evidence Area

Photographic evidence for this assessment was collected on 9 June 2026 from publicly accessible locations outside the restricted inner area of the explosion site. Observations were made up to the police cordon only. No access was available within the restricted area, estimated at approximately 200–250 metres from the explosion site.

The photographic evidence records visible external observations, including blast damage, structural damage, debris, and material dispersal visible from accessible viewpoints. The photographs are used to support the assessment of reported physical impacts and to document conditions observed at the time of the external inspection.

The photographs do not represent a full internal site inspection and should not be interpreted as evidence of chemical contamination, structural safety status, ecological damage, or legal responsibility. Those matters would require official investigation, specialist inspection, laboratory testing, and competent authority assessment.

Figure 2: View from publicly accessible area near the police cordon No 1, 9 June 2026, showing visible blast-related debris/material dispersal close to the epicentre. Photograph: NatureMalta.com, 9 June 2026.

Figure 3: View from publicly accessible area, near to police cordon No 1, 9 June 2026, showing damaged structures in the wider affected area. Photograph: NatureMalta.com, 9 June 2026.

Figure 4: Stone blocks displaced by blast force near the explosion epicentre.
Large stone blocks observed from a publicly accessible area near to Police Point 1, on 9 June 2026, close to the restricted police cordon. The displacement of these blocks is consistent with significant blast force and material dispersal from the area of the fireworks factory explosion. The photograph records visible external evidence only; it does not confirm the exact origin point of the blocks, the full distance travelled, or the structural condition of the restricted inner site. Photograph: NatureMalta.com, 9 June 2026.

Figure 6: General view towards the fireworks factory from Police Checkpoint No. 1.
General view photographed on 9 June 2026 from a publicly accessible location at Police Checkpoint No. 1, looking towards the restricted fireworks factory area. The image provides wider visual context for the affected landscape, access restrictions, and visible external conditions following the 1 June 2026 explosion. The photograph does not represent access within the restricted inner site. Photograph: NatureMalta.com, 9 June 2026.

Figure 7: Temporary multi-agency command and response area near the explosion site. General view photographed on 9 June 2026 showing the temporary operational presence near the restricted area, including Malta Police, Armed Forces of Malta Explosive Ordnance Disposal personnel, Civil Protection Department personnel, and other government departments or competent authorities. Relevant authorities may include the Food Safety and Security Authority, which is Malta's national body responsible for food safety and food-chain controls. The photograph records the visible external response area only and does not identify the full list of agencies present or their individual operational roles. Photograph: NatureMalta.com, 9 June 2026.

Figure 8: Maltese limestone blocks dispersed across field near the cordoned perimeter. Maltese limestone blocks observed on 9 June 2026 scattered across a nearby field at the cordoned perimeter, approximately 200–250 metres from the reported centre of the explosion. The presence and distribution of the blocks provide visible external evidence of blast-related material dispersal across the surrounding rural area. The photograph records conditions visible from the accessible perimeter only and does not confirm the exact original position of the blocks or the full extent of material dispersal within the restricted inner area. Photograph: NatureMalta.com, 9 June 2026.

Figure 9: Dispersed Maltese limestone blocks near police cordon, approximately 200–250 metres from the explosion centre.
View photographed on 9 June 2026 showing Maltese limestone blocks scattered across a nearby field, with police cordon tape marking the restricted perimeter approximately 200–250 metres from the reported centre of the explosion. The visible distribution of material appears to indicate blast-related dispersal towards the north-east, although the precise blast direction, original location of the blocks, and full dispersal pattern would require official blast mapping and specialist assessment. The photograph records visible external evidence from the accessible perimeter only. Photograph: NatureMalta.com, 9 June 2026.

Figure 10: Plastic, hard foam and insulation materials dispersed across local fields.
View photographed on 9 June 2026 showing plastic fragments, hard foam and insulation-type materials dispersed across nearby fields following the 1 June 2026 explosion. The visible spread of lightweight materials indicates blast-related material dispersal beyond the immediate explosion site and presents a potential physical waste and cleanup concern for surrounding rural land. The photograph records visible external evidence from accessible areas only and does not confirm the source, chemical composition, contamination status, or full extent of dispersed material within the restricted area. Photograph: NatureMalta.com, 9 June 2026.

Figure 11: Further view of dispersed plastic, hard foam and insulation-type debris across local fields.
Additional view photographed on 9 June 2026 showing plastic fragments, hard foam and insulation-type materials scattered across nearby rural land following the 1 June 2026 explosion. This photograph provides further visual evidence of lightweight material dispersal beyond the immediate explosion site and supports the need for systematic debris clearance from affected fields. The photograph records visible external evidence from accessible areas only and does not confirm the source, chemical composition, contamination status, or full extent of dispersed material within the restricted area. Photograph: NatureMalta.com, 9 June 2026.

Figure 12: Burnt firework casing and paper fragments scattered across local fields.
View photographed on 9 June 2026 showing small burnt fragments of apparent firework casing material and paper scattered widely across nearby fields following the 1 June 2026 explosion. The visible distribution of burnt paper and casing fragments provides external evidence of pyrotechnic material dispersal beyond the immediate explosion site. The photograph records visible surface evidence from accessible areas only and does not confirm the chemical composition, contamination status, or full extent of firework-related residue within the restricted area. Photograph: NatureMalta.com, 9 June 2026.

Figure 13: Blast-dispersed materials observed beyond the 250-metre restricted radius.
View photographed on 9 June 2026 showing dispersed materials outside the approximate 250-metre restricted radius, with visible debris extending beyond 300 metres from the reported centre of the explosion. The photograph provides external visual evidence that blast-related material dispersal was not confined to the immediate restricted area. The image records visible surface evidence from accessible areas only and does not confirm the full dispersal boundary, source of each material, chemical composition, or contamination status. Photograph: NatureMalta.com, 9 June 2026.

Figure 14: Additional view of blast-dispersed materials beyond the 250-metre restricted radius.
Additional view photographed on 9 June 2026 showing dispersed materials outside the approximate 250-metre restricted radius, with visible debris extending beyond 300 metres from the reported centre of the explosion. This photograph provides further external visual evidence that blast-related material dispersal extended beyond the immediate restricted area. The image records visible surface evidence from accessible areas only and does not confirm the full dispersal boundary, source of each material, chemical composition, or contamination status. Photograph: NatureMalta.com, 9 June 2026.

Figure 15: Small Maltese limestone fragments observed approximately 400 metres from the blast area.
View photographed on 9 June 2026 showing small Maltese limestone fragments lying in tilled agricultural fields approximately 400 metres from the reported centre of the explosion. The presence of stone fragments at this distance provides external visual evidence of blast-related material dispersal across surrounding rural land. The photograph records visible surface evidence from accessible areas only and does not confirm the original location of the fragments, exact trajectory, chemical contamination status, or full extent of the dispersal field. Photograph: NatureMalta.com, 9 June 2026.

NatureMalta.com.

The external visual inspection and photographic record were carried out on 9 June 2026 from publicly accessible locations up to the police cordon. No access was available within the restricted inner area, estimated at approximately 200–250 metres from the reported centre of the explosion.

Photographs included in this assessment were taken by NatureMalta.com unless otherwise stated. The photographs are used to document visible external evidence only and should not be interpreted as a full internal site inspection, laboratory analysis, official investigation, structural safety assessment, or legal determination of responsibility.