Sustainable Agriculture Standard SAS ECO & SAS NATURAL – STORAGE & HANDLING GUIDELINES

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1. Introduction

Storage and handling are critical parts of maintaining product integrity under the SAS Certification System. SAS uses two distinct labels—(SAS Natural and SAS Eco)—storage and handling requirements differ based on risk and the expected output label.

The guidelines below explain both shared and label-specific requirements for all certified operators (farmer groups, traders, processors, warehouse operators and exporters).

2. Core Principles

2.1 SAS Natural

- Zero contamination from prohibited inputs.
- No contact with non-certified goods.
- Physically separated storage.
- Dedicated equipment recommended.
- Strict cleaning, documentation, and traceability.

No commingling (mixing, unintentional blending, or physical contactof certified products with non-certified products) under any circumstance.

2.2 SAS Eco

- Separation from non-certified goods required.
- Focus on preventing contamination from pesticides and residues.
- Equipment may be shared but with strict cleaning protocols.
- Tolerance for mixed-use facilities with controls.
- Sampling and verification for MRL compliance.

3. Storage Guidelines

3.1 Storage Area Requirements

Common Requirements (Both Labels)

- Storage areas must be clean, dry, and well-ventilated.
- Protected from pests, moisture, fuel, chemicals.
- Pallets should be used to avoid floor contact.
- Clear signage showing product type, lot/batch, status.

SAS Natural Requirements:

- Dedicated storage rooms/sections only for SAS Natural goods.
- Physical barriers mandatory (walls, partitions, cages, or sealed racks).

- Shared rooms allowed only if:
  - SAS Natural products are enclosed (sealed containers), and
  - Handling occurs at separate times.
- Cleaning records mandatory before entry of SAS Natural products.
- No chemical pest management; only traps, glue boards, physical control.

SAS Eco Requirements:

- Separate but not necessarily isolated from conventional goods.
- Shared rooms allowed with:
  - Clear labeling,
  - Proper stacking arrangement,
  - “Certified / Non-certified” demarcation.
- Indoor safe pesticides allowed for pest-control (rodenticides, etc.) provided goods are protected and documented.
- Monitoring for external chemical contamination (sprays, drift) must be documented.

3.2 Product Segregation

Common Requirements

- Prevent mixing of certified and non-certified goods.
- Use labeled bags, bins, crates, or sealed containers.

- Each lot must have:
  - Lot number
  - Farm/group reference
  - Product name
  - Quantity
  - Certification status

SAS Natural Requirements:

- Segregation must be 100% physical, not only labeled.
- Use separate:
  - Bags
  - Pallets
  - Racks
  - Loading platforms
- High-risk materials (animal feed, fertilizers, and pesticides) must be stored in separate buildings.

SAS EcoRequirements:

- Zip ties, sealed bags, or color-coded bins may be used.
- Mixed pallets acceptable only if:
  - The certified product layer is wrapped or sealed.
- Storage of certified goods next to conventional goods allowed if:
  - Documentation maintained
  - Physical contamination risk is low

3.3 Chemical & Input Storage

Common Requirements

- All chemicals must be stored away from product storage.
- Diesel, oils, lubricants must be in sealed designated areas.

SAS Natural

- Completely separate room for:
  - Inputs
  - Cleaning chemicals
  - Equipment lubricants
- Only permitted substances allowed; must maintain an Approved Input List.
- Any accidental contact = automatic non-compliance.

SAS Eco

- No storage of high-toxic substances near certified produce.
- Inputs allowed per MRL guidelines, but recordkeeping mandatory.
- Prevent spills, fumes, or drift.

3.4 Temperature & Humidity Control (If Applicable)

Common Requirements (Both Labels)

- Monitor and record:
  - Warehouse temperature
  - Relative humidity
  - Ventilation cycles
- Maintain records weekly or daily depending on product type.

Label-Specific Additions

- **SAS Natural:** Strict control to prevent mold & microbial contamination.
- **SAS Eco:** Focus on maintaining condition to avoid spoilage and chemical degradation.

4. Handling Guidelines

4.1 Receiving of Goods

Both Labels

- Verify documentation (lot, farmer list, harvest date, vehicle details).
- Check packaging integrity.
- Inspect for contamination or foreign matter.

SAS Natural

- Receiving must occur in a dedicated receiving area.
- Shared receiving docks allowed only with:
  - Scheduled separation
  - Cleaning logs before Natural lots arrive
- Any contamination sign → quarantine.

SAS Eco

- Standard receiving docks allowed.
- Contamination checks required for chemical residues (by checking visually along with periodic sampling of produce).

4.2 Cleaning & Sanitation

- **Common Requirements (Both Labels)**
- Equipment must be cleaned before handling certified products.
- Cleaning log with:
  - Date
  - Time
  - Equipment used
  - Person responsible

SAS Natural

- Cleaning must be:
  - Dry cleaning
  - Mechanical (air blowing)
  - Or water-only if necessary
- No chemical cleaning agentsthat may leave residue.
- Mandatory visual inspection by supervisor.

SAS Eco

- Approved chemical cleaners allowed.
- Rinse and dry before contact with produce.
- Documentation required.

4.3 In-Process Handling

Common Requirements (Both Labels)

- Keep product identity throughout handling.
- Use color-coded methods for segregation.

SAS Natural

- No shared equipment unless fully cleaned and validated.
- Dedicated tools recommended.
- High vigilance for commingling risk.

SAS Eco

- Equipment can be shared with cleaning.
- Segregation using:
  - Time separation
  - Color codes
  - Labels
- Lower risk threshold than Natural.

4.4 Packaging & Labeling

Common Requirements (Both Labels)

- Packaging materials must be clean, food-safe.
- Label must include:
  - Product name
  - Certification status (Eco/Natural)
  - Lot number
  - Processor/packer ID
  - Certification body license number

SAS Natural

- Packaging must be sealed immediately after packing.
- Storage after packaging must be in exclusive Natural area.

SAS Eco

- Packaging may be stored near non-certified packaging with separation.

4.5 Dispatch & Transport

Common Requirements (Both Labels)

- Proper dispatch documentation
- Transport vehicles must be cleaned.
- No exposure to chemicals or non-certified materials.

SAS Natural

- Dedicated vehicle recommended.
- If shared vehicle:
  - Full cleaning verification
  - No loose conventional goods
- Operator must seal vehicle with tamper tag.

SAS Eco

- Shared vehicles allowed with proper cleaning.
- Must prevent cross-contact.

5. Pest Management

SAS Natural

- Only physical, mechanical, or biological methods allowed.
- No chemical pesticides inside or around storage.
- Monitoring traps required.

SAS Eco

- Chemical pest control allowed with:
  - Indirect application,
  - No product contact,
  - Documentation of service providers.

6. Traceability & Documentation

Both labels require complete documentation:

- Stock register
- Processing records
- Cleaning logs
- Dispatch register
- Complaints register
- Non-conformity reports

SAS Natural

- 100% traceability from farm → storage → processing → dispatch.
- No tolerance for data gaps.

SAS Eco

- Traceability required but with flexible tolerance in low-risk items.

7. Cross-Contamination Risk Mitigation

SAS Natural

- Critical Control Points must be identified.
- Prevent:
  - Chemical exposure
  - Residue drift
  - Dust contamination
  - Shared processing without cleaning validation

SAS Eco

- Risk is mainly from MRL contamination.
- Prevent:
  - Contact with recent pesticide-treated goods
  - Storage near chemicals
  - Shared processing without cleaning

8. Summary Table: SAS Natural vs SAS Eco Storage & Handling

Requirement	SAS Natural	SAS Eco
Storage Area	Dedicated	Shared allowed
Cleaning	Non-chemical preferred	Chemical cleaning allowed
Equipment	Dedicated preferred	Shared with cleaning
Packaging Area	Exclusive	Shared with separation
Pest Control	No chemicals	Allowed with restrictions
Risk Level	Very High	Medium
Allowed Inputs	Strict permitted list	Based on MRL norms
Transport Documentation	Prefer dedicated Very strict	Shared allowed Moderate strict
Acceptable Contamination Risk	Zero	Low but controlled