

TECHNICAL PRODUCT DATA SHEET & OCCUPATIONAL HEALTH AND SAFETY (OHS) MANUAL

For 4-Point Industrial Safety Helmets — ADR101, ADR102, ADR103 Series

I. COLLECTIVE PRODUCT DATA SHEETS

This series of industrial safety helmets is designed to protect the user's head against mechanical impacts caused by falling objects or structural protrusions. It serves as essential personal protective equipment (PPE) and standard hardware for hazardous material transport vehicle kits (ADR regulations).

- **Model ADR101 (White Helmet):** Dedicated for engineering staff, site managers, construction supervisors, and quality inspectors.
- **Model ADR102 (Yellow Helmet):** Designed for general construction workers, machinery operators, and manufacturing plant personnel.
- **Model ADR103 (Orange Helmet):** Primarily utilized by transport and logistics crews (as part of the mandatory vehicle ADR emergency kit) and registered site visitors.

Technical Specification Matrix

Technical Parameter	Specification & Compliance Standards
Shell Material	High-Density Polyethylene (HDPE) providing robust impact resistance.
Suspension System	4-point webbed harness ensuring optimal energy absorption and head stability.
Standard Equipment	Adjustable, heavy-duty chin strap included in the default factory package.
Protection Class	CE Certified, Category II PPE, Compliant with EN 397:2012+A1:2012 standard.
Operating Temperature	Approved for safe exploitation within a range of -10°C to +50°C.
Lifespan / Validity	Maximum of 4 years from the manufacturing date stamped under the brim.

II. OCCUPATIONAL HEALTH AND SAFETY (OHS) MANUAL

1. Pre-Operational Inspection Protocol

- **Shell Lifespan Verification:** Locate the production date stamp embossed under the helmet's brim. Do not use the helmet if more than 4 years have elapsed since its manufacture.
- **Structural Integrity Check:** Thoroughly inspect the outer shell for cracks, severe deep scratches, discoloration from UV exposure, or deformation. Discard the helmet if any defects are found.
- **Suspension In-system Check:** Ensure all 4 anchor clips of the inner harness are firmly locked into their designated internal shell slots.

2. Safe Exploitation & Fit Guidelines

- **Sizing Adjustment:** Adjust the rear ratchet or slide band so the helmet fits snugly. It must not tilt forward over the eyes or slip backward when the user leans over, yet it should not cause uncomfortable pressure.
- **Mandatory Chin Strap Usage:** The chin strap must always be securely buckled during work or transit. An unfastened helmet will easily dislodge during an accidental slip or secondary impact.
- **Chemical Exposure Hazards:** Do not clean the helmet with petrol, harsh chemical solvents, or thinners. Clean only with lukewarm water and a mild, neutral soap.
- **Adhesive & Modification Ban:** Never drill holes into the structural shell. Refrain from applying commercial tapes or non-certified stickers, as aggressive adhesives can chemically degrade the HDPE structure.

3. Emergency & Post-Incident Procedures

- **The Single-Impact Rule:** If a helmet takes a significant hit from a falling object, is involved in a collision, or drops heavily onto a hard surface, it **MUST** be removed from service immediately and permanently destroyed.
- **Hidden Damage Warning:** Polymers like HDPE degrade structurally upon heavy impact, dissipating energy via microscopic fractures. Even if the shell looks completely intact externally, its protective capability is structurally compromised.