# **GRÀCIA** swivel

Mobles114

by JM Massana - JM Tremoleda

### Sustainability (1/2)



#### AIM

This document provides information deemed relevant from the point of view of the environment and also human health and toxicity. The aim of this self-declaration is merely to inform and justify why this product is environmentally preferable over other similar products on the market.

#### **ENVIRONMENTAL VALUES**

Product designed to minimise its environmental impact throughout its life cycle. Chair manufactured of curved beech and oak or walnut wood. Varnished with aqueous base. Structure made of aluminum Galvanized screws

- 1. The structure is removable from the seat, making it easier to maintain or repair and sort waste.
- 2. Aluminum as well as wood and polymers are recoverable through recycling.
- 3. The company supplying the beech wood used has the PEFC Chain of Custody certificate, ref. FCBA/03-00208 (controlled felling of wood of 100% French origin). Glued seat and legs.
- 4. Urea-formaldehyde resin adhesive is used in the plywood, in powder form and water-soluble.
- 5. Water-based varnish is used (solvent free).
- According to the corresponding safety data sheet, urea-formaldehyde resin adhesive is not deemed hazardous but has various risks: Formaldehyde is a powerful irritant for the eyes, skin and respiratory tract. Continual exposure to formaldehyde can cause chronic respiratory diseases.
  Contains <0.2% formaldehyde and as per Directive 67/548/EEC: 605-001-00-5</li>
  CASE: 50-00-0 EINECS: 200-001-8, classified as: Carc. Cat. 3 (carcinogenics category 3) R40 T (Toxic) R23/24/25C

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- 7. The optional cushion is made from solid polyurethane attached to the wooden seat with cyanoacrylate adhesive. This adhesive is polymerised and is therefore chemically inert and not dangerous. It is classed as a solid chemic substance, non-toxic and not water-soluble. An allergic reaction is not deemed possible. Before they are catalysed, cyanocrylates can irritate the eyes, skin and respiratory system when applied in liquid form. Certain considerations are required during disposal: (EWC): 08 04 09 Waste adhesives and sealants containing organic solvents or other hazardous substances, 08 04 06 In small quantities, can be disposed of in the general waste. The supplier of this adhesive is certified as complying with the REACH regulation.
- 8. Polyurethane basically comprises urethane and isocyanates, toxic in liquid form or as particles when inhaled. But solid polyurethane with its external skin, once catalysed and fully reacted after its injection process, becomes chemically inert. The Spanish Health Ministry has only established exposure limits for isocyanates in liquid form. This GRÀCIA product is therefore not deemed dangerous. Nor is a purge required of toxic products deemed dangerous. In any case, urethane appears on the European Union's harmonised classification of 1st and 2nd category carcinogens and mutagens, as per Royal Decree 363/1995. Regarding the workplace and according to the Spanish Health Ministry, polyurethane incurs the risk of chronic pulmonary disease and, according to some studies, carcinogenic risk in the workplace when manufacturing this preparation, in this case the place where the GRÀCIA chair cushion is produced.
- 9. The decomposition of polyurethane can produce isocyanates, carbon monoxide, nitrogen oxides and hydrogen cyanide. In the case of combustion, firefighters must use self-contained breathing apparatus in enclosed spaces. Polyurethane polymer dust may irritate the eyes and lungs. Suitable hygiene controls and protective personal equipment (PPE), such as gloves, dust masks, breathing apparatus, mechanical ventilation and protective clothing and goggles must be used in such cases.
- 10. Should polyamide burn, without a flame or incompletely, toxic mixes of gases are released that mainly contain CO, CO2 and nitrogen oxides. The following is also produced: amines, nitriles, aliphatics and aromatic hydrocarbons, aldehydes, ketones, acids, ammonia and hydrogen cyanide. Take suitable protective measures, such as an independent breathing system.
- 11. Formaldehyde may cause allergic reactions. Formaldehyde may irritate the eyes, nose and throat in exposures between ranges of 0.3 and 3.6 mg/m3. Possible association between exposure to formaldehyde and cancer, according to several studies. This depends on the period of exposure and concentration of the compound present at the time of exposure. The main risk is via inhalation and ingestion. According to CEPA 1999, it is classed a toxic preparation in paragraphs b and c. (Information from the Canadian Environmental Protection Act, 1999).
- 12. Complies with the REACH regulation (EC) no. 1907/2006 of the European Parliament and of the Council, of 18 December 2006 as: Mobles 114 declares that it maintains a correct channel of communication with its suppliers and that the GRÀCIA products do not contain raw materials that must be registered, do not contain any of the substances contained on the "SVHC" list (Substances of Very High Concern) published by ECHA (European Chemicals Agency) in the quantities specified (the annual manufacture of GRÀCIA products does not produce more than 1 tonne of these substances deemed of very high concern). For all these reasons, GRÀCIA products are deemed to comply with the requirements of the REACH regulation.
- 13. The polyurethane complies with Directive 95/28/EC relating to the burning behaviour of materials and UTAC ST 18-502/1 - 1985 type A.
- 14. The supplier of injected polyurethane has CGM-00/120 certification for Environmental Management.