

TIN AND TIN ALLOYS

1. Scope

This section deals with tin and tin alloys and objects coated with tin or tin alloy partially tin-plated which, as finished products, are intended to be in direct repetitive contact with food products. The products mentioned in sheets "Steels with metallic coating used for packaging" and "Steel and Stainless Steel with metallic coating (unpacked)" are not concerned. The main application examples are the following elements:

- Household articles: measuring instruments, pots, dishes, plates etc.;
- Equipment for the agri-foods industry, metal can closures, etc.

2. Restriction of use for materials

- Do not for use in contact with strongly acidic or basic foods or for heating foods at temperatures up to 150°C.
- Preserving foods in tin or tin alloy objects or objects which have been coated in tin or tin alloys is not advisable .

3. Definitions of performance criteria for food contact

3.1 Text to be used

3.1.1 Regulatory texts

- *Order of 28th June 1912* relating to coloration, conservation and packaging of foodstuffs and drinks
- *Order of 15th November 1945* setting the list of materials likely to be used without adverse effect on public health in the manufacturing of measuring instruments.

3.1.2 Other texts

- NF EN 611-1 Tin and Tin alloys – Pewter and pewterware
– Part 1: Pewter.

3.2 Criteria to be used

3.2.1 Composition of the tin

Verification of tin content: Sn ≥ 97%

3.2.2 Content in undesirable elements

Looking for the presence of lead, cadmium and arsenic.

3.2.2 Content in other elements

Looking for the presence of antimony and copper. •
Sb ≤ 2.5%; Cu ≤ 1.5%

4. Acceptability limits

4.1 Maximum content in undesirable elements

- Pb ≤ 0.050%
- Cd ≤ 0.010 %
- As ≤ 0.030 %

4.2 Specific Migration Limits

Specific migration of Sb (see. notification from CSAH of 2 December 1999): 0.01 mg/kg.