

Data Sheet on Product Safety

BRUFASOL® Yellow AL bismuth vanadates

In the production of **BRUFASOL® Yellow AL bismuth vanadate** pigments none of the following hazardous substances are used or added intentionally. Therefore our **BRUFASOL® Yellow AL bismuth vanadate** pigments do not contain any:

- Chlorinated or brominated organic compounds (e.g. PCB or PBB)
- Boric acid and borates
- Organic tin compounds
- Asbestos
- Formaldehyde
- Azo compounds, Diarylide pigments, Aromatic Amines, Melamine, Benzidine
- Polycyclic aromatic hydrocarbons (PAH; e.g. Naphthalene, Anthracene, Phenanthrene, Benzopyrene)
- Phthalates (DEHP, BBP, DBP and DIBP)
- Nonylphenol and Alkylphenol derivatives
- Polyvinylchloride (PVC)
- Ozone depleting substances
- Raw materials of vegetable or animal origin
- Fluorocarbons (e.g. Fluorosurfactants like PFOA, PFOS)
- Biocides
- Bisphenols, esp. BPA (Bisphenole A)
- Heavy metal compounds of As, Be, Cd, Co, Cr, Cu, Hg, Mn, Ni, Pb, Sb, Se, Sn

Note: Continuous tests concerning the above mentioned substances do not belong to the general production and quality control of *Bruchsaler Farben*.

BRUFASOL® Yellow AL bismuth vanadates are listed in the following inventories:

- REACH (Registered Phase-In Substances):
Registration Number: 01-2119486965-17-0002
- EINECS (EU)
- IECSC (China)
- KECI (Korea)
- TSCA (USA)
- NZIoC (New Zealand)
- DSL (Canada)
- ENCS (Japan)
- PICCS (Philippines)
- AICS (Australia)
- NECI (Taiwan)

BRUFASOL® Yellow AL bismuth vanadates are not listed in the following inventories:

- Brochure No. 1227 (France)
- FDA (USA)

BRUFASOL® Yellow AL bismuth vanadates are compliant with following regulations:

- EN 71/3:2002 (Safety of Toys)
- 2000/53/EC (End-of-Life Vehicles)
- VDA
- CONEG
- Regulation (EU) 10/2011 (ANNEX II Restrictions on materials and articles)
- Resolution AP(89)1
- 94/62/EC (packaging guideline)
- ROHS (inclusive amendments)
- BfR IX

BRUFASOL® Yellow AL bismuth vanadates are applicable for the coloring of plastics for consumer goods within the meaning of 1935/2004/EC. The requirements laid down in the law relate to the final product. For this reason, the manufacturers of consumer goods bear responsibility for ensuring their products comply with the legal requirements.

BRUFASOL® Yellow AL bismuth vanadates are no nanomaterials and therefore not affected by the nano legislation.

BRUFASOL® Yellow AL bismuth vanadates are not included in the GADSL list of banned substances (Global Automotive Declarable Substance List).

BRUFASOL® Yellow AL bismuth vanadates contain less than 0.1% of SVHC (Substance of very high concern) with respect to the current list of candidates (REACH-Regulation (EC) Nr. 1907/2006, Appendix XV).

BRUFASOL® Yellow AL bismuth vanadates comply with the conditions of restrictions as defined in REACH Annex XVII.

BRUFASOL® Yellow AL bismuth vanadates do not contain any lead, cadmium, chromium (VI) or mercury compounds.

The soluble fraction concerning the New Toys Directive 2009/48/EC (Migration measurement according to EN 71/3:2013) is listed in the following table (migration values in ppm)

BRUFASOL® YELLOW	AL 2300	AL 2301	AL 30	AL 40
ALUMINIUM (AL)	770	970	5.700	690
ANTIMONY (SB)	<0,5	<0,5	<0,5	<0,5
ARSENIC (AS)	<0,5	<0,5	<0,5	<0,5
BARIUM (BA)	2	<0,5	0,59	<0,5
LEAD(PB)	<0,1	<0,1	<0,1	0,12
BORON (B)	<2	<2	<2	<2
CADMIUM (CD)	<0,1	<0,1	<0,1	<0,1
CHROMIUM (CR)	<0,5	<0,5	0,63	<0,5
COBALT (CO)	<0,5	<0,5	<0,5	<0,5
COPPER (CU)	<0,5	<0,5	<0,5	<0,5
MANGANESE (MN)	<0,5	<0,5	<0,5	<0,5
NICKEL (NI)	<0,5	<0,5	<0,5	<0,5
MERCURY (HG)	<0,1	<0,1	<0,1	<0,1
SELENIUM (SE)	<0,5	<0,5	<0,5	<0,5
STRONTIUM (SR)	<0,5	<0,5	<0,5	<0,5
ZINC (ZN)	3.300	3.200	82	3.600
TIN (SN)	<2	<2	<2	<2

Due to Directive 2009/48/EC now maximum limits are in force for the migration of 19 elements, each for three categories of toys. Thus the formerly common practice, where the raw material manufacturer generally confirms compliance with all values to the processor, will not be workable anymore!