PIGMENT YELLOW 100

SYNONYMS

Acid Yellow 23-aluminum lake
C.I. 19140:1
C.I. Acid Yellow 23-aluminum lake
C.I. Pigment Yellow 100
Food Yellow No. 4-aluminum lake
Japan Yellow 4 lake
Japan Yellow 4-aluminum lake
Tartrazine-aluminum lake

CHEMICAL STRUCTURE

Unavailable

CHEMICAL FORMULA

Unavailable

IDENTIFIER DETAILS

CAS Number	:	12225-21-17
CoE Number	:	-
FEMA	:	-
EINECS Number	:	235-428-9
E Number	:	-

CLP CLASSIFICATION

Ingredient CLP Classification: No

Endpoint	Classification	Category
Acute Oral Toxicity	-	-
Acute Dermal Toxicity	-	-
Acute Inhalation Toxicity	-	-
Skin Corrosive/irritant	-	-
Eye Damage/Irritation	-	-
Respiratory Sensitisation	-	-
Skin Sensitisation	-	-
Mutagenicity/Genotoxicity	-	-
Carcinogenicity	-	-
Reproductive Toxicity	-	-
Specific Target Organ Toxicity	-	-
Aspiration Toxicity	-	-

SPECIFICATIONS

Melting Point: Unavailable.

Boiling point: Unavailable.

PURPOSE

Colourant.

STATUS IN FOOD AND DRUG LAWS

CoE limits:

Beverages (mg/kg)	Food (mg/kg)	Exceptions (mg/kg)
-	-	-

Acceptable Daily Intake:

ADI (mg/kg)	ADI Set by	Date Set	Comments
-	-	-	-

FDA Status:[CFR21]

Section Number	Comments
-	-

HUMAN EXPOSURE

Natural Occurrence: Not reportedly found in nature.

Reported Uses: As a colourant in plastics, textiles, paper.

TOXICITY DATA

In vivo Toxicity Status

Carcinogenicity and Mutagenicity

No data identified.

Dermal toxicity

No data identified.

Reproductive and developmental toxicity

No data identified.

Inhalation toxicity

No data identified.

Other relevant studies

No data identified.

Behavioural data

No data identified.

***In Vitro* Toxicity Status**

Carcinogenicity and mutagenicity

In a study conducted by Zeiger *et al.,* (1988) Three hundred chemicals were tested for mutagenicity using the bacterial reverse mutation assay, including pigment yellow 100, in Salmonella typhimurium, using a preincubation protocol. All tests were performed in the absence of exogenous metabolic activation, and in the presence of liver S-9 from Aroclor-induced male Sprague-Dawley rats and Syrian hamsters. The authors conclude that pigment yellow 100 was negative in the bacterial reverse mutation assay.

In a study conducted by Imperial Tobacco Ltd, the mutagenicity of smoke condensate was assayed in the bacterial reverse mutation (Ames) assay with the tester strain TA98 in the presence of an S9 metabolic activation system. The cytotoxicity of the cigarette condensate was determined in the neutral red uptake assay and the (3-(4, 5-dimethylthiazol-2-yl)-5-(3-carboxymethoxyphenyl)-2-(4-sulfophenyl)-2H tetrazolium, inner salt assay (MTS assay) with the human hepatocellular liver carcinoma cell line, HEP-G2. It was concluded that the *in vitro* mutagenicity and cytotoxicity of the cigarette smoke was not increased by the addition of the ingredients, which included pigment yellow 100 at levels up to 536 ppm.

REFERENCES

Toxnet (2011). http://chem.sis.nlm.nih.gov/chemidplus/ProxyServlet?objectHandle=Search&actionHandle=getAll3DMViewFiles&nextPage=jsp%2Fcommon%2FChemFull.jsp%3FcalledFrom%3Dlite&chemid=0012225217&formatType=_3D. Last accessed 6th July 2011.

Zeiger,e, Anderson,B, Haworth,S, Lawlor,T and Mortelmans,K; (1988). Salmonella mutagenicity tests: iv. Results from the testing of 300 chemicals; environ. Mol. Mutagen. 11(suppl.12):1-158.