



Tumar Art Group  
Isanov Str. 80-2  
Bishkek, 720001  
Kyrgyzstan

## Test Report No. 41649-001-001

<b>Client:</b>	<b>Tumar Art Group Bishkek, Kyrkyzstan</b>
<b>Sample description by client:</b>	<b>Slipper blue</b>
Sampling by:	Client
Date of arrival of sample:	06.09.2019
Date of report:	16.09.2019
Number of pages of report:	6
Testing parameter:	see table of contents
Testing laboratory:	eco-INSTITUT GmbH, Cologne except * subcontracted

Nach DIN EN ISO/IEC 17025 akkreditiertes Prüflabor



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## Sample view

Internal Sample-no.	Description by customer	Condition upon delivery
A001	Slipper blue	without objection

## 1 Chlorophenols

### Test parameter:

Chlorophenols

### Test method:

Analytcs:

CEN / TR 14823, esterification, cleaning by silica gel after DFG method S19, analysis with GC/MS.

The following chlorophenols were tested:

Pentachlorophenol (PCP), 2,3,5,6-Tetrachlorophenol (TeCP), 2,3,4,5-Tetrachlorophenol (TeCP), 2,3,4,6-Tetrachlorophenol (TeCP), 2,3,5-Trichlorophenol, 2,3,6-Trichlorophenol, 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol

Detection limit:

0,01 mg/kg

### Test Result:

Sample	Parameter	Content (Material) [mg/kg]
A001: Slipper blue	all chlorophenols	not detectable

## 2 Pesticides IVN\*

**Test parameter:**

Pesticides

**Test method:**

Analytics::

all but PCP and TeCP: Extraction, clean up, analysis with GC/ECD, NP-FID, HPLC with UV-detection.  
 PCP, TeCP: extraction, esterification, cleaning up on silicagel following DFG-method S19, analysis by GC/ECD

**Test result:**

Sample-No.:

A001

Parameter	Assessment limit [mg/kg]	Content (Material) [mg/kg]
Aldrin	0.01	< 0.01
alpha-Endosulfan	0.01	< 0.01
beta-Endosulfan	0.01	< 0.01
Bioresmethrin	0.05	< 0.05
Bromophos-ethyl	0.01	< 0.01
Carbaryl	0.05	< 0.05
Chlordan	0.01	< 0.01
Chlorpyrifos-ethyl	0.01	< 0.01
Chlorpyrifos-methyl	0.01	< 0.01
Chlorfenvinphos	0.05	< 0.05
Coumaphos	0.05	< 0.05
Cyfluthrin	0.05	< 0.05
Cyhalothrin	0.05	< 0.05
Cypermethrin	0.05	< 0.05
Deltamethrin	0.05	< 0.05
o,p-DDD	0.01	< 0.01
p,p-DDD	0.01	< 0.01
o,p-DDE	0.01	< 0.01
p,p-DDE	0.01	< 0.01
o,p-DDT	0.01	< 0.01
p,p-DDT	0.01	< 0.01
Diazinon	0.01	< 0.01
Dichlofenthion	0.01	< 0.01
Dichlorvos	0.05	< 0.05
Dieldrin	0.01	< 0.01
<b>Diflubenzuron</b>	<b>0.05</b>	<b>0.12</b>
Dimethoate	0.05	< 0.05
Empenthrin	0.05	< 0.05
Endosulfan sulfate	0.01	< 0.01

Parameter	Assessment limit [mg/kg]	Content (Material) [mg/kg]
Endrin	0.01	< 0.01
Esfenvalerate	0.05	< 0.05
Ethion	0.01	< 0.01
Fenchlorphos	0.01	< 0.01
Fenitrothion	0.01	< 0.01
Fenthion	0.01	< 0.01
Fenvalerate	0.05	< 0.05
Fipronil	0.05	< 0.05
Flumethrin	0.05	< 0.05
Heptachlor	0.01	< 0.01
Heptachlor epoxide	0.01	< 0.01
Hexachlorobenzen (HCB)	0.01	< 0.01
alpha-HCH	0.01	< 0.01
beta-HCH	0.05	< 0.05
gamma-HCH (Lindane)	0.05	< 0.05
delta-HCH	0.01	< 0.01
Malathion	0.01	< 0.01
Methoxychlor	0.05	< 0.05
Parathion-ethyl	0.01	< 0.01
Parathion-methyl	0.01	< 0.01
Pentachlorophenol (PCB)	0.01	< 0.01
Permethrin	0.05	< 0.05
Pirimiphos-ethyl	0.01	< 0.01
Pirimiphos-methyl	0.01	< 0.01
Propetamphos	0.01	< 0.01
Pyrethrum	0.05	< 0.05
Quinalphos	0.01	< 0.01
Tetrachlorvinphos	0.01	< 0.01
Transfluthrin	0.05	< 0.05
Triflumuron	0.05	< 0.05
Total:		<b>0.12</b>

<b>IVN-orientation value, total:</b>	<input type="checkbox"/> 0.1 cellulose fibres, silk <input type="checkbox"/> 1.0 shorn wool conventional <input type="checkbox"/> 0.5 shorn wool cert. org.
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### 3 Azo dyes in extractable and non extractable dyes (combination method)

**Test parameter:**

Azo dyes

**Test method:**

Analytically: DIN EN 14362-1, quantification by GC/MS  
Assessment limit: 3 mg/kg  
according to Öko-Tex 100

**Test result:**

Sample	Parameter	Content (Material) [mg/kg]
A001: Slipper blue	Azo dyes	negative

The following aryl amines have been tested:

Benzidine, 3,3'-Dimethoxybenzidine, 4-Aminoazobenzene, 2,4-Toluylendiamine, o-Toluidine, p-Chloroaniline, o-Anisidine, 3,3'-Dimethylbenzidine, 4-Aminobiphenyl, 4-Chlor-o-toluidine, 3,3'-Dichlorbenzidine, 2-Amino-4-nitrotoluene, o-Aminoazotoluene, 2-Naphthylamine, p-Cresidine, 4,4'-Oxydianiline, 4,4'-Diaminobiphenylmethane, 3,3'-Dimethyl-4,4'-diaminobiphenylmethane, 4,4'-Methylene-bis(2-chloraniline), 4,4'-Thiodianiline, 2,4,5-Trimethylaniline, 2,4-Diaminoanisole, 2,4-Xylidine, 2,6-Xylidine.

Criteria for negative result:  3 mg/kg

Ref. results: If the sample contains an amine ref. to the german law, it is documented in the column results .  
negative = Azo dyes banned by the regulation on consumer goods have not been detected in the analysed sample.

positive = Azo dyes banned by the regulation on consumer goods have been applied upon Manufacture or treatment of the said sample according to the result of analysis.

Uncertainty of measurement was not considered. If it is important for assessment of sample, please contact lab management.

Where 4-Aminobiphenyl, 2-Naphthylamine or 4-Methoxy-m-phenylendiamine (2,4-Diaminoanisole) is found to be present in levels exceeding 3 mg/kg, the use of banned azo colourants cannot be reliably ascertained without additional information, e.g. the chemical structure of the colourants used.

#### 4 Heavy Metals according to IVN / GOTS \*

**Test parameter:**

Heavy Metals

**Test method:**

Analytics:

Elution of heavy metals from textiles by acidic perspiration (60 min. at 40 °C). Quantitative analysis according to DIN EN ISO 17294-2

Detection limit:

Sb, Pb: 0:1 mg/kg  
As, Se: 0.2 mg/kg  
Cd: 0.05 mg/kg  
Cr total, Co, Cu, Ni: 1 mg/kg  
Hg: 0.02 mg/kg  
Cr VI: 0.5 mg/kg  
Sn: 1 mg/kg

**Test result:**

Sample:

A001: Slipper blue

Parameter	Content (Material) [mg/kg]
Antimony (Sb)	< 0.1
Arsenic (As)	< 0.2
Lead (Pb)	< 0.1
Cadmium (Cd)	< 0.05
Chromium total (Cr)	< 1
Chromium VI (Cr VI)	< 0.5
Cobalt (Co)	< 1
Copper (Cu)	< 1
Nickel (Ni)	< 1
Mercury (Hg)	< 0.02
Selenium (Se)	< 0.2
Tin (Sn)	< 1

Cologne, 16.09.2013



Dr. rer.-nat. Hans-Ulrich Krieg  
(Technical Manager)