1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1. Product Identifier

Product Name: XSL Bismuth Vanadate Yellow

Article No.: 26100

1.2. Relevant identified Uses of the Substance or Mixture and Uses advised against

Identified uses: Coloring agent for dye and varnish industry

Uses advised against:

1.3. Details of the Supplier of the Safety Data Sheet (Producer/Importer)

Company: Kremer Pigmente GmbH & Co. KG
Address: Hauptstr. 41-47, 88317 Aichstetten, Germany
Tel./Fax.: Tel +49 7565 914480, Fax +49 7565 1606
Internet: www.kremer-pigmente.de
EMail: info@kremer-pigmente.de

1.4. Emergency No.

Emergency No.: +49 7565 914480 (Mon-Fri 8:00 - 17:00)

2. Hazards Identification

2.1. Classification of the Substance or Mixture

Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

This product does not require classification and labelling as hazardous according to CLP/GHS.

Classification according to Directive No. 67/548/EC or No. 1999/45/EC

The material is not subject to classification according to EC lists.

Safety Phrases:

Possible Environmental Effects:

2.2. Label Elements

Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

No classification required according to the CLP/GHS guidelines.

Hazard designation:

Not applicable.

Signal word:

Hazard designation:

Safety designation:

Hazardous components for labelling:

EUH208: contains 1,2-Benzisothiazol-3(2H)-one. Can cause NEXT PAGE: 2
According to regulation (EC) No. 1907/2006 (REACH)

3. Composition/Information on Ingredients

3.1. Substance

3.2. Mixture

Chemical Characterization: Bismuth vanadate pigment, water dispersable powder. Pigment Yellow 184

Information on Components / Hazardous Ingredients:

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
<th>CAS-Nr</th>
<th>EINECS-Nr</th>
<th>EC-Nr</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butenedioic acid (2Z)- polymer with 2-methyl-1-propene and octadecene, sodium salt</td>
<td>1 - 3 %</td>
<td>191175-18-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2-Benzisothiazol-3(2H)-one; 1,2-Benzisothiazolin-3-one</td>
<td>0 - 0.1 %</td>
<td>2634-33-5</td>
<td>220-120-9</td>
<td></td>
</tr>
</tbody>
</table>

Additional information:

4. First Aid Measures

4.1. Description of the First Aid Measures

General information: Remove contaminated clothes.

After inhalation: Supply fresh air and seek medical advice in case of complaints.

After skin contact: Remove contaminated clothing. Wash off immediately with plenty of water and soap.

After eye contact: Rinse open eyes with plenty of water for at least 15 minutes.

After ingestion: Rinse mouth with water and drink plenty of water.

4.2. Most important Symptoms and Effects, both Acute and Delayed

Symptoms: No further information available.

Effects:

4.3. Indication of any Immediate Medical Attention and special Treatment needed

Treatment: Symptomatic treatment (decontamination, vital functions), no specific antidote known.

5. Fire-Fighting Measures

5.1. Extinguishing Media

Suitable extinguishing media:
Extinguishing powder, foam.

Unsuitable extinguishing media:
Carbon dioxide (CO2)

5.2. Special Hazards arising from the Substance or Mixture

Special hazards:
In case of fire: hazardous vapors may be released. Development of fumes/aerosol.

5.3. Advice for Firefighters

Protective equipment:
Wear self-contained respiratory protective device.

Further information:
Avoid formation of dust: risk of dust explosion.

6. Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions:
Avoid formation of dust, wear protective clothing.

6.2. Environmental Precautions

Environmental precautions:
Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

6.3. Methods and Material for Containment and Cleaning Up

Methods and material:
Small spills:
Clean up with suitable appliance and dispose adequately.
Large spills:
Contain with dust binding material and dispose accordingly.
Avoid dust formation.

6.4. Reference to other Sections

Protective clothing, see Section 8.
Dispose of contaminated material according to Section 13.

7. Handling and Storage

7.1. Precautions for Safe Handling

Instructions on safe handling:
Respiratory protection when handling without exhaust system.

Hygienic measures:
Do not inhale dust. Wash hands before breaks and at the end of work.

7.2. Conditions for Safe Storage, including any Incompatibilities

Storage conditions:
Store in tightly sealed containers in a dry and cool room.

Requirements for storage areas and containers:
Keep container tightly closed.

Avoid dust formation. Protect against electrostatic charging.

Storage class (VCI):
11; Combustible solids

Further Information:
Storage temperature: < 40°C

7.3. Specific End Use(s)

Further information:
No further information available.

8. Exposure Controls/Personal Protection

8.1. Parameters to be Controlled

Parameters to be controlled (DE):
TRGS 900
Bismuth vanadate pigments: 0.1 mg/m3

Parameters to be controlled:

Derived No-Effect Level (DNEL):

Predicted No-Effect Concentration (PNEC):

Additional Information:

8.2. Exposure Controls

Technical protective measures:

Personal Protection

General protective measures:
The usual precautionary measures are to be adhered to when handling chemicals.
Protective clothing recommended due to the coloring effects of the product.

Respiratory protection:
Suitable respiratory protection for lower concentration or short-term effect: particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, type P2 or FFP2).

Hand protection:
Protective gloves (EN 374)
The manufacturer’s directions for use should be observed because of the great diversity of types.

Protective glove material:
Recommended: Protective index 6, > 480 min. of permeation time accord. EN 374.
Nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinyl chloride (0.7 mm).
Suitability and durability of a glove is dependent on usage, e.g.
9. **Physical and Chemical Properties**

9.1. **Information on Basic Physical and Chemical Properties**

- **Form:** granules
- **Color:** yellow
- **Odor:** odorless
- **Odor threshold:** No information available.
- **pH-Value:** 7 - 10 (100 g/l)
- **Melting temperature:** not determined
- **Boiling temperature:** not determined
- **Flash point:** not available
- **Evaporation rate:** This product is a non-volatile solid.
- **Flammability (solid, gas):** not easily flammable
- **Upper explosion limit:** no information available
- **Lower explosion limit:** no information available
- **Vapor pressure:** not applicable
- **Vapor density:** not applicable
- **Density:** This product is a non-volatile solid.
- **Solubility in water:** dispersible
- **Coefficient of variation (n-Octanol/Water):**
9.2. Further Information

Solubility in solvents:

Viscosity, kinematic

Burning class:

Solvent content:

Solid content:

Particle size:

Other information:

Hygroscopy: not hygroscopic

10. Stability and Reactivity

10.1. Reactivity

Stable if used according to specifications.

10.2. Chemical Stability

Stable if used according to specifications.

10.3. Possibility of Hazardous Reactions

The product may contain explosive fine dust or such dust may be produced by abrasion during transport or product transfer.

10.4. Conditions to Avoid

Conditions to avoid:

Avoid formation of dust.

10.5. Incompatible Materials

None known.

10.6. Hazardous Decomposition Products

None if stored and handled according to specifications.

10.7. Further Information

11. Toxicological Information
11.1. Information on Toxicological Effects

Acute Toxicity

LD₅₀, oral:  > 5000 mg/kg
LD₅₀, dermal: > 5000 mg/kg
LC₅₀, inhalation: not determined

Primary effects

Irritant effect on skin: Slight irritant effect (rabbit; OECD 404)
Irritant effect on eyes: Non-irritating to eyes (rabbit; OECD 405)
Inhalation: No information available.
Ingestion: No information available
Sensitization: No sensitizing effects known (guinea pig; OECD 406).
Mutagenicity: No mutagenic effects known.
Reproductive toxicity: No relevant data found.
Carcinogenicity: No relevant data found.
Teratogenicity: No information available.
Specific target organ toxicity (STOT):
Single exposure: the substance or mixture is not classified as specific target organ toxicant.
Repeated exposure: no information available.

Additional toxicological information: Aspiration hazard: not applicable

12. Ecological Information

12.1. Aquatic Toxicity

Toxic for aquatic organisms.

Fish toxicity: LC₅₀: 10 - 100 mg/l (96 h, Danio rerio)
Daphnia toxicity: No information available.
Bacteria toxicity: EC₅₀: > 100 mg/l (Pseudomonas putida)
Algae toxicity: No information available.

12.2. Persistency and Degradability
Not readily biodegradable.

12.3. Bioaccumulation
No bioaccumulation expected.

12.4. Mobility
No accumulation by the organisms.

12.5. Results of PBT- und vPvP Assessment
According to Annex VIII to Regulation (EC) No. 1907/2006 (REACH): this product is neither a PBT (persistent/bioaccumulative/toxic) or vPvB (very persistent/very bioaccumulative/very toxic) substance nor does it contain a PBT or vPvB substance.

12.6. Other Adverse Effects

Water hazard class: 1, slightly hazardous

Behaviour in sewage systems: No impairment of the biodegradability of active sludge expected when small amounts are discharged in biological sewage plants. Treatment and discharge of waste water into biological treatment plant should be carried out according to official national and local regulations.

Further ecological effects: Do not discharge product uncontrolled into the environment. The product does not contain any substances which can deplete the ozone layer, according to Section I of EC-Directive 2037/2000/EC. The data refer to the properties of the individual components.

AOX Value:

13. Disposal Considerations

13.1. Waste Treatment Methods

Product: In accordance with current regulations, product may be taken to a waste disposal site or incineration plant, after consultation with site operator and/or with the responsible authority.

European Waste Code (EWC):

Uncleaned packaging: Uncontaminated packaging may be recycled. Completely empty packaging can be disposed of with the regular waste. Packaging may be disposed of in the same manner as the product.
14. Transport Information

14.1. UN Number

ADR, IMDG, IATA

14.2. UN Proper Shipping Name

ADR/RID:

No hazardous goods according to ADR (land transportation).

IMDG/IATA:

No hazardous goods according to IMDG.

14.3. Transport Hazard Classes

ADR Class:

Not applicable

Hazard no.:

Classification code:

Tunnel restriction code:

IMDG Class (sea):

Hazard no.:

EmS No.:

IATA Class:

Not applicable

14.4. Packaging Group

ADR/RID:

Not applicable

IMDG:

IATA:

14.5. Environmental Hazards

None

14.6. Special Precautions for User

Not classified as a dangerous good under transport regulations.

14.7. Transportation in Bulk according to Annex II of MARPOL 73/78 and IBC-Code

Not applicable

14.8. Further Information

15. Regulatory Information

15.1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

Water hazard class:

1, slightly hazardous for water (German Regulation, Assessment by list)

Local regulations on chemical accidents:

Employment restrictions:
Restriction and prohibition of application:

Technical instructions on air quality:

15.2. Chemical Safety Assessment

A Chemical Safety Assessment has not yet been carried out for this product.

15.3. Further Information

Regulation (EC) 2037/2000 - Substances that Deplete the Ozone Layer: not regulated / not applicable

16. Other Information

This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should therefore not be construed as guaranteeing specific properties.