

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 43910 Bismuth-Vanadate Yellow, lemon

Page 1

Revised edition: 22.11.2022

Version: 1.01

Printed: 11.07.2025

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

#### 1.1. Product Identifier

*Product Name:* Bismuth-Vanadate Yellow, lemon

*Article No.:* 43910

*UFI:* --

#### 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.com

*E-Mail:* info@kremer-pigmente.com

*Importer:* --

#### 1.4. Emergency No.

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

#### 1.4.2 Poison Center:

### 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.*

*Possible Environmental Effects:*

#### 2.2. Label Elements

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

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

*Hazard designation:*

*Not applicable.*

*Signal word:*

*Hazard designation:*

*Safety designation:*

*Hazardous components for labelling:*

#### 2.3. Other Hazards

next page: 2

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 43910 Bismuth-Vanadate Yellow, lemon

Page 2

Revised edition: 22.11.2022

Version: 1.01

Printed: 11.07.2025

---

### 3. Composition/Information on Ingredients

#### 3.1. Substance

#### 3.2. Mixture

*Chemical Characterization:*

*Bismuth-vanadium tetraoxide. C.I. Pigment Yellow 184. CAS No. 14059-33-7; EINECS 237-898-0. REACH Reg.-No. 01-2119486965-17-0000*

*Information on Components / Hazardous Ingredients:*

Zinc phosphate (H400-410); REACH Reg. No. 01-2119485044-40

3 - 5 %

CAS-Nr: 7779-90-0

EINECS-Nr: 231-944-3

EC-Nr: 030-011-00-6

---

*Additional information:*

### 4. First Aid Measures

#### 4.1. Description of the First Aid Measures

*General information:*

*If symptoms occur, or in case of doubt seek medical advice.  
In case of unconsciousness give nothing by mouth, place in stable side position and seek medical advice.*

*After inhalation:*

*Supply fresh air. Consult physician if symptoms persist.  
Give artificial respiration in case breathing is not regular or if it has stopped.*

*After skin contact:*

*Remove contaminated clothing. Wash off immediately with plenty of water and soap.  
Do not use solvents or thinners.*

*After eye contact:*

*Rinse open eyes with plenty of water for at least 15 minutes.  
Remove contact lenses, if present and easy to do.*

*After ingestion:*

*Rinse mouth with water and drink plenty of water.  
Do not induce vomiting.*

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

*Symptoms:*

*Exposure to high concentrations of dust may result in upper respiratory tract (nose and throat) and pulmonary irritation.*

*Effects:*

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

*Treatment:*

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

next page: 3

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 43910 Bismuth-Vanadate Yellow, lemon

Page 3

Revised edition: 22.11.2022

Version: 1.01

Printed: 11.07.2025

---

### 5. Fire-Fighting Measures

#### 5.1. Extinguishing Media

*Suitable extinguishing media:*

*Foam, carbon dioxide (CO<sub>2</sub>), extinguishing powder, water spray.*

*Unsuitable extinguishing media:*

*Do not use a solid water stream as it may scatter and spread fire.*

#### 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.*

*In case of fire: formation of carbon oxides, nitrogen oxides and fumes.*

#### 5.3. Advice for Firefighters

*Protective equipment:*

*Wear self-contained respiratory protective device.*

*Further information:*

*Cool exposed containers with water spray.*

*Contaminated extinguishing water and debris should be disposed of according to local regulations.*

---

### 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:*

*Wipe up with adsorbant material (e.g. cloth, fleece).*

*Preferably clean with detergent. Avoid the use of solvents.*

*Contain with dust binding material and dispose accordingly.*

#### 6.4. Reference to other Sections

*Dispose of contaminated material according to Section 13.*

*For information for safe handling see Section 7.*

---

### 7. Handling and Storage

#### 7.1. Precautions for Safe Handling

*Instructions on safe handling:*

*Avoid formation of dust. Do not inhale dust.*

*Wear adequate protective clothing (see para. 8).*

*Hygienic measures:*

next page: 4

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 43910 Bismuth-Vanadate Yellow, lemon

Page 4

Revised edition: 22.11.2022

Version: 1.01

Printed: 11.07.2025

---

*Do not eat or drink during work. Do not smoke.  
Clean contaminated clothing before entering eating areas.  
Wash hands before breaks and after work.*

### 7.2. Conditions for Safe Storage, including any Incompatibilities

*Storage conditions:*

*Store in tightly sealed containers in a dry room.  
Protect against heat and direct sunlight.*

*Requirements for storage areas and containers:*

*Close open containers with care and store in an upright position to avoid spilling.*

*Information on fire and explosion protection:*

*No special measures necessary.*

*Storage class:*

*13; Non combustible solids (TRGS 510)*

*Further Information:*

### 7.3. Specific End Use(s)

*Further information:*

*No information available.*

---

## 8. Exposure Controls/Personal Protection

### 8.1. Parameters to be Controlled

*Parameters to be controlled (DE):*

*TRGS 900, AGW:*

*C.I. Pigment Yellow 184: Short-term value: 0.008 mg/m<sup>3</sup> (15 min; respirable fraction); Average value: 0.001 mg/m<sup>3</sup> (8h; respirable fraction)*

*Parameters to be controlled:*

*Derived No-Effect Level (DNEL):*

*Zinc phosphate (CAS 7779-90-0):*

*83 mg/kg (worker/consumer, skin contact, long-term exposition - systemic effects)*

*5 mg/m<sup>3</sup> (worker, inhalation, long-term exposure - systemic and local effects)*

*2.5 mg/m<sup>3</sup> (consumer, inhalation, long-term exposure - systemic effects)*

*0.83 mg/kg (consumer, swallowing, long-term exposition - systemic effects)*

*PNEC (Predicted No-Effect Concentration):*

*Zinc phosphate (CAS 7779-90-0):*

*Fresh water: 20.6 µg/l*

*Seawater: 6.1 µg/l*

*Fresh water sediment: 117.8 mg/kg*

next page: 5

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 43910 Bismuth-Vanadate Yellow, lemon

Page 5

Revised edition: 22.11.2022

Version: 1.01

Printed: 11.07.2025

---

Seawater sediment: 56.5 mg/kg  
Sewage treatment system (STP): 100 µg/l  
Soil: 35.6 mg/kg

*Additional Information:*

### 8.2. Exposure Controls

*Technical protective measures:*

*Provide adequate ventilation in case of dust formation.*

*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.*

*Wash hands before breaks and after work.*

*Respiratory protection:*

*In case of higher concentration or long-term exposure of dust: particle filter type P2, EN 143 (for solid and liquid particles).*

*Hand protection:*

*Chemical protective gloves (EN 374 (Europe), F739 (US)).*

*The manufacturer's directions for use should be observed because of the great diversity of types.*

*Protective glove material:*

*Recommended: Protective index 6, corresponding > 480 min. of permeation time according to EN 374.*

*Nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinyl chloride (0.7 mm).*

*Eye protection:*

*Safety glasses with protective shields (EN 166).*

*Body protection:*

*Protective clothing, antistatic.*

*Environmental precautions:*

*Prevent from getting into the soil, surface water and sewage system.*

---

## 9. Physical and Chemical Properties

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

*Form:* low dusting fine granules

*Color:* yellow

*Odor:* odorless

*Odor threshold:*  
no information available

*pH-Value:* 7-8 (50 g/l, 20°C) (DIN 787-9)

next page: 6

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 43910 Bismuth-Vanadate Yellow, lemon

Page 6

Revised edition: 22.11.2022

Version: 1.01

Printed: 11.07.2025

---

Melting temperature:	> 1000°C
Boiling temperature:	not applicable
Flash point:	not applicable
Evaporation rate:	This product is a non-volatile solid.
Flammability (solid, gas):	not flammable
Upper explosion limit:	not determined
Lower explosion limit:	not determined
Vapor pressure:	not applicable
Vapor density:	This product is a non-volatile solid.
Density:	5.3 g/cm <sup>3</sup> (20°C)
Solubility in water:	insoluble
Coefficient of variation (n-Octanol/Water):	not applicable
Auto-ignition temperature:	Product is not auto-ignitable (Test type: Spontaneous self-ignition at room temperature)
Decomposition temperature:	not determined
Viscosity, dynamic:	not applicable
Explosive properties:	Product does not present an explosion hazard.
Oxidizing properties:	not oxidizing
Bulk density:	ca. 909 kg/m <sup>3</sup>

### 9.2. Further Information

Solubility in solvents:

Viscosity, kinematic:

Burning class:

next page: 7

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 43910 Bismuth-Vanadate Yellow, lemon

Page 7

Revised edition: 22.11.2022

Version: 1.01

Printed: 11.07.2025

---

*Solvent content:*

*Solid content:*

*Particle size:*

*Other information:*

*Self-heating ability: This product is not self-heating.*

---

### 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

*None if handled and stored according to specifications.*

#### 10.4. Conditions to Avoid

*Conditions to avoid:*

*Avoid formation of dust.*

*Thermal decomposition:*

*Exposure to high temperatures can form hazardous decomposition products.*

#### 10.5. Incompatible Materials

*Strong acids, strong bases, oxidizing agents.*

#### 10.6. Hazardous Decomposition Products

*None if stored and handled according to specifications.*

#### 10.7. Further Information

---

### 11. Toxicological Information

#### 11. 1. Information on Hazard Classes as defined in Regulation (EC) No. 1272/2008

*Acute Toxicity*

*LD50, oral:*

*> 5000 mg/kg (rat; OECD 401)*

*Not toxic after single oral exposure.*

*LD50, dermal:*

*not determined*

*LC50, inhalation:*

*> 5.1 mg/l (4h, rat; OECD 403)*

*Primary effects*

*Irritant effect on skin:*

*Non irritating (rabbit; OECD 404)*

*Irritant effect on eyes:*

*Non-irritating to eyes (rabbit; OECD 405)*

*Inhalation:*

*No information available.*

*Ingestion:*

next page: 8

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 43910 Bismuth-Vanadate Yellow, lemon

Page 8

Revised edition: 22.11.2022

Version: 1.01

Printed: 11.07.2025

---

*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: no information available.*

*Repeated exposure: no information available.*

*Aspiration hazard:*

*No information available.*

### 11.2. Information on other Hazards

*Endocrine Disrupting Properties: no information available.*

---

## 12. Ecological Information

### 12.1. Aquatic Toxicity

*Highly unlikely to be acutely harmful to aquatic organisms. No toxic effect in the range of water solubility.*

*Fish toxicity:*

*LC50: > 10000 mg/l (96h, Danio rerio; OECD 203)*

*Daphnia toxicity:*

*EC50: > 100 mg/l (48h, Daphnia magna; OECD 202)*

*Bacteria toxicity:*

*EC10: > 10000 mg/l (16h, Pseudomonas putida)*

*Algae toxicity:*

*EC50: > 100 mg/l (72h, Desmodesmus subspicatus; OECD 201)*

### 12.2. Persistency and Degradability

*Inorganic product, cannot be eliminated from water by biological purification processes.*

*The product is virtually insoluble in water and can thus be separated from water mechanically in suitable effluent treatment plants.*

### 12.3. Bioaccumulation

*Bioaccumulation is not to be expected.*

### 12.4. Mobility

*Does not evaporate from the surface of the water to the atmosphere.*

*Weak mobility.*

next page: 9

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 43910 Bismuth-Vanadate Yellow, lemon

Page 9

Revised edition: 22.11.2022

Version: 1.01

Printed: 11.07.2025

### 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. Endocrine Disrupting Properties

*No data available.*

### 12.7. Other Adverse Effects

*Water hazard class:*

*3, hazardous*

*Behaviour in sewage systems:*

*Further ecological effects:*

*AOX Value:*

*Product does not contain any organically bound halogens which influence the AOX value of discard water.*

## 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:*

*Contaminated packaging must be disposed like the substance. Non-contaminated packaging may be recycled.*

*Waste Code No.:*

## 14. Transport Information

### 14.1. UN Number

*ADR, IMDG, IATA*

### 14.2. UN Proper Shipping Name

*ADR/RID:*

*No hazardous goods according to ADR / DOT (US) (land transportation).*

*IMDG/IATA:*

*Not hazardous goods*

### 14.3. Transport Hazard Classes

*ADR Class:*

*not applicable*

*Hazard no.:*

next page: 10

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 43910 Bismuth-Vanadate Yellow, lemon

Page 10

Revised edition: 22.11.2022

Version: 1.01

Printed: 11.07.2025

---

*Classification code:*

*Tunnel restriction code:*

*IMDG Class (sea):*

*not applicable*

*Hazard no.:*

*EmS No.:*

*IATA Class:*

*not applicable*

*Hazard no.:*

### 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. Maritime Transport in Bulk according to IMO Instruments

*not evaluated*

### 14. 8. Further Information

---

## 15. Regulatory Information

### 15. 1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

*Water hazard class:*

*3, very hazardous for water (German Regulation)*

*Local regulations on chemical accidents:*

*Seveso III: does not apply*

*Employment restrictions:*

*Restriction and prohibition of application:*

*EC. REACH, Section XVII, Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles: not applicable*

*Technical instructions on air quality:*

*5.2.2.: 87.1 % (Classification III); 5.2.1: 12.9 %*

### 15. 2. Chemical Safety Assessment

*A Chemical Safety Assessment has been carried out for this product.*

### 15. 3. Further Information

*EC. REACH, Annex XIV, Candidate List of Substances of very High Concern (SVHC): not regulated / not applicable*

next page: 11

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 43910 Bismuth-Vanadate Yellow, lemon

Page 11

Revised edition: 22.11.2022

Version: 1.01

Printed: 11.07.2025

---

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

*Regulation (EC) 649/2012 concerning the export and import of dangerous chemicals: Not applicable*

*Regulation on Persistent Organic Polutants (POP): not listed*

*VOC Content: 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 be therefore not be construed as guaranteeing specific properties.*