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

1.1. Product Identifier

Product Name:  Kremer Color Paste - Bismuth-Vanadate Yellow
Article No.:  27160

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
Importer: --

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)

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:

Other Hazards
3. Composition/Information on Ingredients
   3.1. Substance
   3.2. Mixture

   Chemical Characterization: Bismuth vanadate pigment suspension. Contains Pigment Yellow 184.

   Information on Components / Hazardous Ingredients:
   Bismuth-vanadium tetraoxide, C.I. Pigment Yellow 184; REACH Reg. No. 01-2119486965-17-0000 ca. 60 %
   CAS-Nr: 14059-33-7
   EINECS-Nr: 237-898-0
   EC-Nr:

   Additional information:

4. First Aid Measures
   4.1. Description of the First Aid Measures
   General information: Remove contaminated clothes.

   After inhalation: Supply fresh air. Consult physician if symptoms persist.

   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: None known.

   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:
   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:
   Small spills:
   Clean up with suitable appliance and dispose adequately.
   Large spills:
   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:
   Respiratory protection when handling without exhaust system.
   Avoid formation of dust. Do not inhale dust.

   Hygienic measures:
   Do not eat or drink during work. Do not smoke.

7. 2.  Conditions for Safe Storage, including any Incompatibilities

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

   Requirements for storage areas and containers:
   No special measures necessary.

   Information on fire and explosion protection:
   No special measures necessary.

   Storage class (VCI):
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):

Fine dust of the bismuth vanadate pigments: 0.1 mg/m³ (BASF recommendation).

Parameters to be controlled:

Derived No-Effect Level (DNEL):

Predicted No-Effect Concentration (PNEC):

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, > 480 min. of permeation time accord. 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:

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: liquid

Color: yellow

Odor: mild

Odor threshold: No information available.

pH-Value: not available

Melting temperature: not determined

Boiling temperature: not applicable

Flash point: not applicable

Evaporation rate: not applicable

Flammability (solid, gas): not flammable

Upper explosion limit: not determined

Lower explosion limit: not determined

Vapor pressure: not applicable

Vapor density: No information available.

Density: 1.65 g/cm³ (20°C)

Solubility in water: miscible

Coefficient of variation (n-Octanol/Water): not applicable

Auto-ignition temperature: Product is not auto-ignitable.

Decomposition temperature: not determined

Viscosity, dynamic: not applicable

Explosive properties: Product is not explosive.
Safety Data Sheet
According to regulation (EC) No. 1907/2006 (REACH)

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Printed:  12.01.2017

Oxidizing properties: not oxidizing

Bulk density:

9. 2. Further Information

Solubility in solvents:

Viscosity, kinematic

Burning class:

Solvent content:

Solid content:

Particle size:

Other information:

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:

No further information available.

10.5. Incompatible Materials

Strong acids and alkalies.

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: Not toxic after single oral exposure.

LD50, dermal: not determined

LC50, inhalation:

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: No information available

Sensitization: No sensitizing effects known (guinea pig; OECD 406).

Mutagenicity: No mutagenic effects known.

Reproductive toxicity: No relevant data found.

Cancerogenity: No relevant data found.

Teratogenicity: No information available.

Specific target organ toxicity (STOT):
Single exposure: no organospecific toxicity expected.
Repeated exposure: no organospecific toxicity expected.

Information on the fine dust of bismuth vanadate pigments (Bismuth vanadium tetraoxide):
Repeated exposure: repeated inhalative exposure caused weight gain and tissue alterations of the lung.

Additional toxicological information:
Tests were carried out with an aerosol. The results are based on the substance transferred to a respirable aerosol (particle size < 20 µm).
No risk of aspiration.

12. Ecological Information
12.1. Aquatic Toxicity
Not hazardous for aqueous organisms. No toxic effects.

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
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.
Bioconcentration factor: < 14 (56d; Oryzias latipes; OECD 305)
The product contains heavy metals. Any exposure to the environment must be eliminated. Special treatment is necessary before disposing of the product or its by-products or contaminated water.

12.4. Mobility

Does not evaporate from the surface of the water to the atmosphere.
Weak mobility.

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) nor a 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 (German Regulation) (Assessment by list): 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:
The product contains heavy metals. The local waste-water limit values are to be considered for the mentioned heavy metals.

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:
Packaging may be disposed of in the same manner as the product.
Uncontaminated packaging may be recycled.

Waste Code No.:
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 
Hazard no.: 

14. 4. Packaging Group

ADR/RID: not applicable

IMDG: not applicable

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 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: 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

This product contains substances for which a Chemical Safety Assessment has been carried out.

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.