

# Safety Data Sheet

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



## 50011 MIRAVAL® 5450 Cosmic Bronze

Page 1

Revised edition: 15.07.2021

Version: 2.0

Printed: 19.07.2021

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

#### 1.1. Product Identifier

*Product Name:* MIRAVAL® 5450 Cosmic Bronze

*Article No.:* 50011

*UFI:* VM55-G9CM-D5SK-T6PK

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

*Identified uses:*  
Coloring agent

*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](http://www.kremer-pigmente.com)

*E-Mail:* [info@kremer-pigmente.com](mailto: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:*  
EUH212 Warning! Hazardous respirable dust may be formed when used.  
Do not breathe dust.

*Safety designation:*

*Hazardous components for labelling:*

**Other Hazards**

next page: 2

# Safety Data Sheet

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



## 50011 MIRAVAL® 5450 Cosmic Bronze

Page 2

Revised edition: 15.07.2021

Version: 2.0

Printed: 19.07.2021

2.3.

*No special hazards known.*

### 3. Composition/Information on Ingredients

3.1. Substance

3.2. Mixture

*Chemical Characterization:* Calcium aluminium boron silicate laminated with silicium dioxide, titanium dioxide, iron oxide and tin oxide.

*Information on Components / Hazardous Ingredients:*

Tin oxide, SnO <sub>2</sub> ; REACH Reg. No. 01-2119946062-44	1 - 10 %	CAS-Nr: 18282-10-5 EINECS-Nr: 242-159-0 EC-Nr:
---	----------	--

*Additional information:*

### 4. First Aid Measures

4.1. Description of the First Aid Measures

*General information:*

*Take affected persons out into the fresh air.*

*After inhalation:*

*Supply fresh air. Consult physician if symptoms persist.*

*After skin contact:*

*Wash off with water.*

*After eye contact:*

*Rinse eyes with water.*

*After ingestion:*

*Drink plenty of water. Get medical help in case of discomfort.*

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

*Symptoms:*

*No further information available.*

*Effects:*

*No further information available.*

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

*Treatment:*

*No information available.*

### 5. Fire-Fighting Measures

5.1. Extinguishing Media

*Suitable extinguishing media:*

*Use extinguishing media for surrounding fire.*

*Unsuitable extinguishing media:*

*None known.*

5.2. Special Hazards arising from the Substance or Mixture

next page: 3

# Safety Data Sheet

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



## 50011 MIRAVAL® 5450 Cosmic Bronze

Page 3

Revised edition: 15.07.2021

Version: 2.0

Printed: 19.07.2021

---

*Special hazards:*

*Product is not flammable.  
In case of fire: hazardous vapors may be released.*

**5.3. Advice for Firefighters**

*Protective equipment:*

*Wear self-contained respiratory protective device.*

*Further information:*

*Collect contaminated extinguishing water and debris separately;  
avoid contamination of sewage system.*

---

**6. Accidental Release Measures**

**6.1. Personal Precautions, Protective Equipment and Emergency Procedures**

*Personal precautions:*

*Avoid inhalation of dust.  
Evacuate the danger area, observe emergency procedures,  
consult an expert.*

**6.2. Environmental Precautions**

*Environmental precautions:*

*Prevent contamination of soil, drains and surface waters.*

**6.3. Methods and Material for Containment and Cleaning Up**

*Methods and material:*

*Take up mechanically and collect in suitable container for disposal.  
Rinse spill area. Avoid dust formation.*

**6.4. Reference to other Sections**

*Dispose of contaminated material according to Section 13.*

---

**7. Handling and Storage**

**7.1. Precautions for Safe Handling**

*Instructions on safe handling:*

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

*Hygienic measures:*

*No further measures, see Section 8.*

**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:*

*10-13 (TRSG 510)*

*Further Information:*

next page: 4

# Safety Data Sheet

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



## 50011 MIRAVAL® 5450 Cosmic Bronze

Page 4

Revised edition: 15.07.2021

Version: 2.0

Printed: 19.07.2021

### 7.3. Specific End Use(s)

*Further information:*

*See Section 1.2.; no other uses provided*

### 8. Exposure Controls/Personal Protection

#### 8.1. Parameters to be Controlled

*Parameters to be controlled (DE):*

*TRGS 900*

*TLV: 1.25 mg/m<sup>3</sup> air-borne fraction (general dust limit)*

*TLV: 10 mg/m<sup>3</sup> inhalable fraction (general dust limit)*

*Peak limit category II (2)*

*Titanium dioxide (Rutile, CAS 1317-80-2): TLV (TRGS 900): 1.25 mg/m<sup>3</sup> (airborne dust), 10 mg/m<sup>3</sup> (inhalable dust); 2 (II)*

*Silicon dioxide, CAS 112926-00-8 (7631-86-9), TWA-Value: 4 mg/m<sup>3</sup> (inhalable dust fraction)*

*Tin oxide (CAS 18282-10-5): TLV (TRGS 900): 2 mg/m<sup>3</sup> (inhalable fraction; as Sn)*

*Category II: substances with a resorptive effect.*

*Parameters to be controlled:*

*Tin oxide (CAS 18282-10-5), ECTLV: 2 mg/m<sup>3</sup> (Time weighted average; as Sn)*

*Derived No-Effect Level (DNEL):*

*Predicted No-Effect Concentration (PNEC):*

*Additional Information:*

#### 8.2. Exposure Controls

*Technical protective measures:*

*Technical protective measures have priority to personal protective measures.*

*Personal Protection*

*General protective measures:*

*Wash hands before breaks and after work.*

*Respiratory protection:*

*Dust mask recommended when very dusty (with particle filter P1).*

*Hand protection:*

*Not required*

*Protective glove material:*

*Eye protection:*

*Safety glasses (EN 166)*

*Body protection:*

*Environmental precautions:*

*No special measures required.*

### 9. Physical and Chemical Properties

next page: 5

# Safety Data Sheet

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



## 50011 MIRAVAL® 5450 Cosmic Bronze

Page 5

Revised edition: 15.07.2021

Version: 2.0

Printed: 19.07.2021

---

### 9. 1. Information on Basic Physical and Chemical Properties

<i>Form:</i>	<i>powder</i>
<i>Color:</i>	<i>copper</i>
<i>Odor:</i>	<i>odorless</i>
<i>Odor threshold:</i>	<i>no information available</i>
<i>pH-Value:</i>	<i>not available</i>
<i>Melting temperature:</i>	<i>not available</i>
<i>Boiling temperature:</i>	<i>not available</i>
<i>Flash point:</i>	<i>not applicable</i>
<i>Evaporation rate:</i>	<i>No information available.</i>
<i>Flammability (solid, gas):</i>	<i>not flammable</i>
<i>Upper explosion limit:</i>	<i>no information available</i>
<i>Lower explosion limit:</i>	<i>no information available</i>
<i>Vapor pressure:</i>	<i>not applicable</i>
<i>Vapor density:</i>	<i>No information available.</i>
<i>Density:</i>	
<i>Solubility in water:</i>	<i>insoluble</i>
<i>Coefficient of variation (n-Octanol/Water):</i>	<i>no information available</i>
<i>Auto-ignition temperature:</i>	<i>No information available.</i>
<i>Decomposition temperature:</i>	<i>No data available.</i>
<i>Viscosity, dynamic:</i>	<i>not available</i>
<i>Explosive properties:</i>	<i>Product does not present an explosion hazard.</i>
<i>Oxidizing properties:</i>	

next page: 6

# Safety Data Sheet

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



## 50011 MIRAVAL® 5450 Cosmic Bronze

Page 6

Revised edition: 15.07.2021

Version: 2.0

Printed: 19.07.2021

---

*no information available*

*Bulk density:*

### 9.2. Further Information

*Solubility in solvents:*

*Viscosity, kinematic:*

*Burning class:*

*Solvent content:*

*Solid content:*

*Particle size:* 20 - 200 µm

*Other information:*

---

### 10. Stability and Reactivity

#### 10.1. Reactivity

*Stable if used according to specifications.*

#### 10.2. Chemical Stability

*Stable at room temperature.*

#### 10.3. Possibility of Hazardous Reactions

*No information available.*

#### 10.4. Conditions to Avoid

*Conditions to avoid:*

*No further information available.*

*Thermal decomposition:*

*No data available.*

#### 10.5. Incompatible Materials

*No information available.*

#### 10.6. Hazardous Decomposition Products

*None known.*

#### 10.7. Further Information

---

### 11. Toxicological Information

#### 11.1. Information on Toxicological Effects

*Acute Toxicity*

*LD50, oral:*

*Tin oxide: > 2000 mg/kg (rat, m/f; ECHA)*

*LD50, dermal:*

*No information available.*

*LC50, inhalation:*

*LC50 (4h, rat, m/f): could not be determined because no mortality of rats was observed at the maximum achievable concentration (OECD 403)*

*Primary effects*

*Irritant effect on skin:*

next page: 7

# Safety Data Sheet

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



## 50011 MIRAVAL® 5450 Cosmic Bronze

Page 7

Revised edition: 15.07.2021

Version: 2.0

Printed: 19.07.2021

---

*Tin oxide: non irritating (OECD 431)*

*Irritant effect on eyes:*

*No information available.*

*Inhalation:*

*No information available.*

*Ingestion:*

*No information available*

*Sensitization:*

*Tin oxide:*

*Non sensitizing (OECD 429, Mouse Local Lymph Node Assay (LLNA))*

*Mutagenicity:*

*No relevant data found.*

*Reproductive toxicity:*

*No relevant data found.*

*Carcinogenicity:*

*No relevant data found.*

*Teratogenicity:*

*No information available.*

*Specific target organ toxicity (STOT):*

*No relevant data found.*

*Additional toxicological information:*

*Handle in accordance with good industrial hygiene and safety practice.*

*Avoid inhalation of dust. Even inert dusts can impair the function of the respiratory system.*

---

## 12. Ecological Information

### 12.1. Aquatic Toxicity

*Fish toxicity:*

*Tin oxide: LC50: >100 mg/l (96h, Oncorhynchus mykiss; OECD 203)*

*Tin oxide: NOEC: >100 mg/l (96h, Oncorhynchus mykiss; OECD 203)*

*Daphnia toxicity:*

*Tin oxide: EC50: > 100 mg/l (48h, Daphnia magna)*

*Tin oxide: NOEC: > 100 mg/l (48h, Daphnia magna)*

*Bacteria toxicity:*

*Tin oxide: EC50: > 1000 mg/l (3h, active sludge; OECD 209)*

*Algae toxicity:*

*Tin oxide: NOEC: 9.77 mg/l (72h, Desmodesmus subspicatus; OECD 201)*

### 12.2. Persistency and Degradability

*Methods for the evaluation of the biological degradability are not*

*next page: 8*

# Safety Data Sheet

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



## 50011 MIRAVAL® 5450 Cosmic Bronze

Page 8

Revised edition: 15.07.2021

Version: 2.0

Printed: 19.07.2021

---

*applicable for inorganic substances.*

### 12.3. Bioaccumulation

*No information available.*

### 12.4. Mobility

*No information available.*

### 12.5. Results of PBT- und vPvP Assessment

*On the basis of available data, the product does not contain any PBT or vPvB substances in percentage greater than 0.1 %.*

### 12.6. Other Adverse Effects

*Water hazard class:*

*Not hazardous.*

*Behaviour in sewage systems:*

*Further ecological effects:*

*When used properly, no ecological problems expected.*

*AOX Value:*

---

## 13. Disposal Considerations

### 13.1. Waste Treatment Methods

*Product:*

*Dispose of product residues according to the waste disposal guidelines 2008/98/EC as well as according to official national and local regulations.*

*Do not mix with other waste.*

*European Waste Code (EWC):*

*Uncleaned packaging:*

*Contaminated packaging must be disposed like the substance.*

*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 (land transportation).*

*IMDG/IATA:*

*Not hazardous goods*

### 14.3. Transport Hazard Classes

*ADR Class:*

*not applicable*

*Hazard no.:*

*Classification code:*

*Tunnel restriction code:*

next page: 9



# Safety Data Sheet

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



## 50011 MIRAVAL® 5450 Cosmic Bronze

Page 9

Revised edition: 15.07.2021

Version: 2.0

Printed: 19.07.2021

---

*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. 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:*

*0, not hazardous (German Regulation)*

*Local regulations on chemical accidents:*

*Seveso III Directive: not applicable under Directive 2012/18/EC.*

*Employment restrictions:*

*The employment restrictions for young workers in accordance with the Youth Employment Protection Law are to be observed.*

*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:*

### 15. 2. Chemical Safety Assessment

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

*REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59): not applicable*

### 15. 3. Further Information

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

*Regulation (EC) 1005/2009 - Substances that Deplete the Ozone*

next page: 10

# Safety Data Sheet

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



## 50011 MIRAVAL® 5450 Cosmic Bronze

Page 10

Revised edition: 15.07.2021

Version: 2.0

Printed: 19.07.2021

---

*Layer: not regulated / not applicable*

*Regulation (EC) 850/2004 - Persistent organic pollutants and amending Directive 79/117/EEC: 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 be therefore not be construed as guaranteeing specific properties.*