

# Safety Data Sheet

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



## 391061 Colored Glass, Apple-Yellow, opaque

Page 1

Revised edition: 17.12.2018

Version: 2

Printed: 08.01.2021

---

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

#### 1.1. Product Identifier

*Product Name:* Colored Glass, Apple-Yellow, opaque

*Article No.:* 391061

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

*Identified uses:*

*Colorless and colored glass as an intermediate for further processing*

*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:*

*Safety designation:*

*Hazardous components for labelling:*

#### 2.3. Other Hazards

---

### 3. Composition/Information on Ingredients

Substance

next page: 2

# Safety Data Sheet

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



## 391061 Colored Glass, Apple-Yellow, opaque

Page 2

Revised edition: 17.12.2018

Version: 2

Printed: 08.01.2021

3.1.

### 3.2. Mixture

*Chemical Characterization:* Glass, oxide (colored glass): CAS No. 65997-17-3, EINECS 266-046-0  
*Inorganic product of fusion.*  
*All components are bound by vitrification.*

#### *Information on Components / Hazardous Ingredients:*

|  |          |  |
|--|----------|--|
| Lead monoxide (Repr. 1A, H302-332-351-360-362-372-410); REACH Reg. No. 01-2119531110-62-0014 | 1 - 40 % | CAS-Nr: 1317-36-8<br>EINECS-Nr: 215-267-0<br>EC-Nr: 082-001-00-6 |
| Copper oxide (H400-H410); REACH Reg.-Nr. 01-2119502447-44-0000                               | 0 - 9 %  | CAS-Nr: 1317-38-0<br>EINECS-Nr: 215-269-1<br>EC-Nr: 029-016-00-6 |
| Cobalt oxide (H302-318-332-410); REACH Reg. No. 01-2119513794-36-xxxx                        | 0 - 8 %  | CAS-Nr: 1307-96-6<br>EINECS-Nr: 215-154-6<br>EC-Nr:              |
| Nickel oxide (317-350i-372-413); REACH Reg. No. 01-2119467172-41                             | 0 - 6 %  | CAS-Nr: 1313-99-1<br>EINECS-Nr: 215-215-7<br>EC-Nr:              |
| Diarsenic trioxide (H300-314-350-410)  | 0 - 5 %  | CAS-Nr: 1327-53-3<br>EINECS-Nr: 215-481-4<br>EC-Nr:              |
| Cadmium oxide (H350-31-361fd-330-372-400-410)  | 0 - 5 %  | CAS-Nr: 1306-19-0<br>EINECS-Nr: 215-146-2<br>EC-Nr:              |
| Diantimony trioxide (H351); REACH Reg. No. 01-2119475613-35                                  | 0 - 5 %  | CAS-Nr: 1309-64-4<br>EINECS-Nr: 215-175-0<br>EC-Nr:              |
| Selenium (H301-331-373-413)  | 0 - 4 %  | CAS-Nr: 7782-49-2<br>EINECS-Nr: 231-957-4<br>EC-Nr:              |
| Manganese(IV) oxide (H302-332-373); REACH Reg. No. 01-2119452801-43                          | 0 - 20 % | CAS-Nr: 1313-13-9<br>EINECS-Nr: 215-202-6<br>EC-Nr: 025-001-00-3 |
| Zinc oxide (H400-410); REACH Reg. No. 01-2119463881-32-0000                                  | 0 - 15 % | CAS-Nr: 1314-13-2<br>EINECS-Nr: 215-222-5<br>EC-Nr: 030-013-00-7 |
| Barium oxide (H271-301-314); REACH Reg. No. 01-2120078585-44-0000                            | 0 - 12 % | CAS-Nr: 1304-28-5<br>EINECS-Nr: 215-127-9<br>EC-Nr: 056-002-00-7 |

next page: 3

# Safety Data Sheet

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



## 391061 Colored Glass, Apple-Yellow, opaque

Page 3

Revised edition: 17.12.2018

Version: 2

Printed: 08.01.2021

### *Additional information:*

*SVHC (Candidate List of Substances of very High Concern): This product contains a substance in amounts greater than 0.1 % (w/w) listed in the Candidate List according to Article 59 of the REACH Regulation 1907/2006/EC: Lead monoxide, Diarsenic trioxid, Cadmium oxide.  
EC SVHC-List (REACH, Annex XIV): Diarsenic trioxide*

## 4. First Aid Measures

### 4.1. Description of the First Aid Measures

#### *General information:*

*In case of an accident or if you feel unwell, seek medical advice immediately (show Safety Data Sheet where possible).*

#### *After inhalation:*

*Supply fresh air and keep patient calm.  
In case of irritation of the respiratory system seek medical help.*

#### *After skin contact:*

*Wash carefully with plenty of water and soap. Consult a physician in case of skin irritation.*

#### *After eye contact:*

*Carefully rinse eyes with water for several minutes.  
Seek medical attention if irritation persists.*

#### *After ingestion:*

*Rinse mouth with water and drink plenty of water.  
Do not induce vomiting.  
If symptoms persist, call a physician.*

### 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:*

*Treat symptomatically.*

## 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:*

*Water with full jet.*

### 5.2. Special Hazards arising from the Substance or Mixture

#### *Special hazards:*

*In case of fire: formation of carbon monoxide and dioxide.*

### 5.3. Advice for Firefighters

#### *Protective equipment:*

next page: 4

# Safety Data Sheet

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



## 391061 Colored Glass, Apple-Yellow, opaque

Page 4

Revised edition: 17.12.2018

Version: 2

Printed: 08.01.2021

---

*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:*

*Wear protective clothing.  
Avoid formation of dust.  
Do not inhale dust.*

#### 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:*

*Take up mechanically and collect in suitable containers for disposal.*

#### 6.4. Reference to other Sections

*For information for safe handling see Section 7.  
See Section 13 for information on disposal.*

---

### 7. Handling and Storage

#### 7.1. Precautions for Safe Handling

*Instructions on safe handling:*

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

*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 cool and well ventilated location.*

*Protect product from humidity.*

*Protect against heat.*

*Requirements for storage areas and containers:*

*Keep container tightly closed.*

*Information on fire and explosion protection:*

*Do not store together with: foodstuffs, beverages and feed.*

*Do not store together with explosives, oxidants, radioactive and infectious substances.*

*Storage class:*

*10-13 (TRSG 510)*

next page: 5

# Safety Data Sheet

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



## 391061 Colored Glass, Apple-Yellow, opaque

Page 5

Revised edition: 17.12.2018

Version: 2

Printed: 08.01.2021

*Further Information:*

Storage temperature: 20°C

### 7.3. Specific End Use(s)

*Further information:*

## 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: 2 (II)

Lead and its compounds: 0.1 mg/m<sup>3</sup> (8h)

Barium compounds (as Ba), soluble (except Barium oxide and Barium hydroxide): 0.5 mg/m<sup>3</sup> (inhalable fraction); 1 (I)

Diantimony trioxide (CAS 1309-64-4): 0.006 mg/m<sup>3</sup> (airborne fraction); 8 (I)

Manganese and its inorganic compounds: TLV: Average value: 0.2 mg/m<sup>3</sup> (inhalable fraction), 0.02 mg/m<sup>3</sup> (airborne fraction); Short-term value: 1.6 mg/m<sup>3</sup> (inhalable fraction), 0.16 mg/m<sup>3</sup> (airborne fraction); 1(II), Y

Nickel compounds: 0.03 mg/m<sup>3</sup> (inhalable fraction); 8 (1)

Selenium (CAS 7782-49-2): 0.05 mg/m<sup>3</sup> (airborne fraction); 1 (II)

*Parameters to be controlled:*

Lead and its compounds: 0.15 mg/m<sup>3</sup> (UK, Control of Lead at Work Regulations (CLAW 2002); BE; HU; ES; IT)

*Derived No-Effect Level (DNEL):*

Zinc oxide:

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

0.5 mg/m<sup>3</sup> (worker, inhalation, long-term exposure - local effects)

87 mg/kg bw/d (worker/consumer, skin contact, long-term exposure - systemic effects)

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

0.83 mg/kg bw/day (consumer, swallowing, long-term exposure - systemic effects)

Barium oxide:

0.5 mg/m<sup>3</sup> (worker, inhalation, long-term exposure - systemic effects)

Nickel oxide:

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

18.9 mg/m<sup>3</sup> (worker, inhalation, short-term exposure - local effects)

0.012 mg/cm<sup>2</sup> (worker, skin contact, long-term exposure - local effects)

1.8 mg/m<sup>3</sup> (consumer, inhalation, short-term exposure - local effects)

0.011 mg/kg bw/d (consumer, swallowing, long-term exposure -

next page: 6

# Safety Data Sheet

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



## 391061 Colored Glass, Apple-Yellow, opaque

Page 6

Revised edition: 17.12.2018

Version: 2

Printed: 08.01.2021

*systemic effects)*

*0.37 mg/kg bw/d (consumer, swallowing, short-term exposition - systemic effects)*

*Diantimony trioxide*

*0.315 mg/m<sup>3</sup> (worker, inhalation, long-term exposition - local effects)*

*67 mg/kg bw/d (worker, skin contact, long-term exposition - systemische effects)*

*0.095 mg/m<sup>3</sup> (consumer, inhalation, long-term exposition - local effects)*

*33.5 mg/kg bw/d (consumer, skin contact/swallowing, long-term exposition - systemic effects)*

*Diarsenic trioxide:*

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

*0.0022 mg/kg bw/d (consumer, swallowing, long-term exposition - systemic effects)*

*Predicted No-Effect Concentration (PNEC):*

*Lead, inorganic:*

*Fresh water: 0.0024 mg/l*

*Sea water: 0.0033 mg/l*

*Fresh water sediment: 186 mg/kg*

*Sea water sediment: 168 mg/kg*

*Secondary poisoning: 10.9 mg/kg*

*Sewage treatment system (STP): 0.1 mg/l*

*Soil: 212 mg/kg*

*Zinc oxide:*

*Fresh water: 0.0206 mg/l*

*Sea water: 0.0061 mg/l*

*Fresh water sediment: 117.8 mg/kg*

*Seawater sediment: 56.5 mg/kg*

*Sewage treatment system (STP): 0.1 mg/l*

*Barium oxide:*

*Fresh water: 0.065 mg/l*

*Sea water: 0.006 mg/l*

*Fresh water sediment: 351 mg/kg*

*Sea water sediment: 35.1 mg/kg*

*Intermittent release: 0.162 mg/l*

*Sewage treatment system (STP): 100 mg/l*

*Soil: 2.6 mg/kg*

*Copper oxide:*

*Fresh water: 0.0078 mg Cu/l*

*Sea water: 0.0052 mg/l*

*Fresh water sediment: 87.1 mg Cu kg / dwt*

*Seawater sediment: 676 mg Cu kg / dwt*

*Sewage treatment system (STP): 0.23 mg Cu/l*

*Soil: 65 mg/kg*

*Nickel oxide:*

*Fresh water: 0.0071 mg/l*

next page: 7

# Safety Data Sheet

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



## 391061 Colored Glass, Apple-Yellow, opaque

Page 7

Revised edition: 17.12.2018

Version: 2

Printed: 08.01.2021

---

*Sea water: 0.0086 mg/l*  
*Fresh water sediment / Sea water sediment: 109 mg/kg*  
*Intermittent release: 0 mg/l*  
*Secondary poisoning: 0.12 mg/kg*  
*Soil: 29.9 mg/kg*  
*Diantimony trioxide:*  
*Fresh water: 0.135 mg/l*  
*Sea water: 0.013 mg/l*  
*Fresh water sediment: 13.4 mg/kg*  
*Sea water sediment: 2.68 mg/kg*  
*Sewage treatment system (STP): 3.05 mg/l*  
*Soil: 44.3 mg/kg*

### *Additional Information:*

*Biological limit value (TRGS 903):*  
*Lead (CAS 7439-92-1): 400 µg (men, women > 45 years)*

## 8.2. Exposure Controls

### *Technical protective measures:*

*Provide adequate ventilation in case of dust formation.*

### *Personal Protection*

### *General protective measures:*

*Avoid contact with skin, eyes and clothing.*  
*Do not eat, drink or smoke during work.*  
*Contaminated work clothing should not be worn out of the workplace. Wash contaminated clothing before reusing.*

### *Respiratory protection:*

*Respiratory equipment required in case of insufficient ventilation, filter type P3.*

### *Hand protection:*

*Protective gloves (EN 374)*

### *Protective glove material:*

*Recommended: Protective index 6, > 480 min. of permeation time accord. EN 374.*  
*Nitrile rubber (0.35 mm), chloroprene rubber (0.5 mm), butyl rubber (0.5 mm)*  
*Fluoro carbon rubber (0.5 mm), polyvinyl chloride (PVC; 0.5 mm)*

### *Eye protection:*

*Tightly fitting safety goggles (EN 166).*

### *Body protection:*

*Protective clothing.*

### *Environmental precautions:*

*No special measures required.*

---

## 9. Physical and Chemical Properties

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

*Form: powder*

next page: 8

# Safety Data Sheet

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



## 391061 Colored Glass, Apple-Yellow, opaque

Page 8

Revised edition: 17.12.2018

Version: 2

Printed: 08.01.2021

---

|  |  |
|--|--|
| <i>Color:</i>                                      | <i>colorless to colored</i>                  |
| <i>Odor:</i>                                       | <i>odorless</i>                              |
| <i>Odor threshold:</i>                             | <i>not relevant</i>                          |
| <i>pH-Value:</i>                                   | <i>not applicable</i>                        |
| <i>Melting temperature:</i>                        | <i>not determined</i>                        |
| <i>Boiling temperature:</i>                        | <i>not applicable</i>                        |
| <i>Flash point:</i>                                | <i>not available</i>                         |
| <i>Evaporation rate:</i>                           | <i>not applicable</i>                        |
| <i>Flammability (solid, gas):</i>                  | <i>not applicable</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>This product is a non-volatile solid.</i> |
| <i>Density:</i>                                    | <i>2.4 - 3.3 g/cm<sup>3</sup> (20°C)</i>     |
| <i>Solubility in water:</i>                        | <i>insoluble</i>                             |
| <i>Coefficient of variation (n-Octanol/Water):</i> | <i>not determined</i>                        |
| <i>Auto-ignition temperature:</i>                  | <i>not applicable</i>                        |
| <i>Decomposition temperature:</i>                  | <i>not applicable</i>                        |
| <i>Viscosity, dynamic:</i>                         | <i>not applicable</i>                        |
| <i>Explosive properties:</i>                       | <i>Risk of dust explosion.</i>               |
| <i>Oxidizing properties:</i>                       |  |
| <i>Bulk density:</i>                               | <i>1.4 - 2.2 kg/dm<sup>3</sup></i>           |

next page: 9

# Safety Data Sheet

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



## 391061 Colored Glass, Apple-Yellow, opaque

Page 9

Revised edition: 17.12.2018

Version: 2

Printed: 08.01.2021

---

### 9.2. Further Information

*Solubility in solvents:*

*Viscosity, kinematic:*

*Burning class:*

*Solvent content:*

*Solid content:*

*Particle size:*

*Other information:*

*Flow point: > 900°C*

*Softening point: > 580°C*

---

### 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

*Unknown.*

#### 10.4. Conditions to Avoid

*Conditions to avoid:*

*Protect from humidity and heat.*

*Thermal decomposition:*

#### 10.5. Incompatible Materials

*Oxidizing agents.*

*Strong acids.*

*Strong reducing agents.*

#### 10.6. Hazardous Decomposition Products

*If heated above 900°C: formation of fumes of inorganic metal compounds.*

#### 10.7. Further Information

---

### 11. Toxicological Information

#### 11.1. Information on Toxicological Effects

*Acute Toxicity*

*LD50, oral:*

*Lead monoxide: > 2000 mg/kg (rat; OECD 423)*

*Manganese dioxide: > 3480 mg/kg (rat)*

*Zinc oxide: > 5000 mg/m<sup>3</sup> (rat)*

*Bariumoxide: ATE: 100 mg/kg*

*Copper oxide: > 2500 mg/kg (rat; OECD 423)*

*Cobalt oxide: 159 mg/kg (rat; OECD 401)*

*Nickeloxid: 5000 - 11000 mg/kg (rat)*

*Diantimony trioxide: > 34600 mg/kg (rat)*

*Diarsenic trioxide: 14.6 mg/kg (rat)*

next page: 10

# Safety Data Sheet

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



## 391061 Colored Glass, Apple-Yellow, opaque

Page 10

Revised edition: 17.12.2018

Version: 2

Printed: 08.01.2021

*Cadmium oxide: 2330 mg/kg (rat)*

*Selenium: ATE: 100 mg/kg*

### *LD50, dermal:*

*Lead monoxide: > 2000 mg/kg (rat; OECD 402)*

*Zinc oxide: > 2000 mg/kg (rat)*

*Copper oxide: > 2000 mg/kg (rat; OECD 402)*

*Cobalt oxide: > 2000 mg/kg (rat; OECD 402)*

*Diantimony trioxide: > 8300 mg/kg (rabbit)*

### *LC50, inhalation:*

*Lead oxide: ATE: 11 mg/l (vapor); ATE: 1.5 mg/l (aerosol)*

*Manganese dioxide: ATE: 11 mg/l (vapor); ATE: 1.5 mg/l (aerosol)*

*Zinc oxide: > 1.79 mg/l (4h, aerosol, rat)*

*Barium oxide: ATE: 11 mg/l (vapor); ATE: 1.5 mg/l (aerosol)*

*Cobalt oxide: 0.06 mg/l (4h, aerosol, rat; OECD 436)*

*Nickel oxide: > 5.15 mg/l (4h, aerosol, rat)*

*Cadmium oxide: ATE: 0.5 mg/l (vapor); ATE: 0.05 mg/l (aerosol)*

*Selenium: ATE: 3 mg/l (vapor); ATE: 0.5 mg/l (aerosol)*

### *Primary effects*

#### *Irritant effect on skin:*

*No information available*

#### *Irritant effect on eyes:*

*No information available.*

#### *Inhalation:*

*No information available.*

#### *Ingestion:*

*No information available*

#### *Sensitization:*

*No relevant data found.*

#### *Mutagenicity:*

*No relevant data found.*

#### *Reproductive toxicity:*

*No relevant data found.*

#### *Carcinogenicity:*

*No relevant data found.*

#### *Teratogenicity:*

*No relevant data found.*

#### *Specific target organ toxicity (STOT):*

*Repeated exposure: no information available.*

*Single exposure: no information available.*

#### *Additional toxicological information:*

*Aspiration hazard: no data available*

## 12. Ecological Information

next page: 11

# Safety Data Sheet

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



## 391061 Colored Glass, Apple-Yellow, opaque

Page 11

Revised edition: 17.12.2018

Version: 2

Printed: 08.01.2021

### 12.1. Aquatic Toxicity

#### *Fish toxicity:*

Lead monoxide: LC50: 0.0408-40.54 mg/l (96h, Fish); NOEC: 0.007-2.07 mg/l (7-112d, Fish)  
Zink oxide: LC50: 4.92 mg/l (96h, Brachydanio rerio)  
Copper oxide: LC50: 0.0105-9.15 mg/l (96h, Fish); NOEC: 0.0022-0.188 mg/l (7-330d, Fish)  
Cobalt oxide: LC50: 0.52-85 mg/l (96h, Fish); NOEC: 0.0747-99 mg/l (7-81d, Fish)  
Nickel oxide: LC50: 0.4-320 mg/l (96h, Fish); NOEC: 0.057-431 mg/l (8-85d, Fish)  
Diantimony trioxide: LC50: 14.4 mg/l (96h, Pimephales promelas); NOEC: 0.0075-4.5 mg/l (30d, Pimephales promelas)  
Diarsenic trioxide: NOEC: 2.13 mg/l (35d, various species)  
Cadmium oxide: NOEC: 0.00047-0.132 mg/l (7-100d, Fisch)

#### *Daphnia toxicity:*

Lead monoxide: EC50: 0.026-3.11 mg/l (48h, Crustacea); NOEC: 0.001-30 mg/l (7-126d, Crustacea)  
Zinc oxide: LC50: 4.92 mg/l (21d, Daphnia magna)  
Barium oxide: EC50: 14.5 mg/l (48h, Daphnia magna)  
Copper oxide: EC50: 0.0085-1.21 mg/l (48h, Crustacea); NOEC: 0.004-0.181 mg/l (2-240d, Crustacea)  
Cobalt oxide: EC50: 0.605-167 mg/l (48h, Crustacea); NOEC: 0.00683-3.73 mg/l (7-28d, Crustacea)  
Nickel oxide: EC50: 0.013-4970 mg/l (48h, Crustacea); NOEC: 0.0083-1.71 mg/l (7-121d, Crustacea)  
Diantimony trioxide: EC50: 12,1 mg/l (48h, Daphnia magna); NOEC: 1,74 mg/l (21d, Daphnia magna; OECD 211)  
Diarsenic trioxide: NOEC: 0.631 mg/l (51d, Americamysis bahia)  
Cadmium oxide: EC50: 0.036 mg/l (48h, Daphnia magna); NOEC: 0.0003-25 mg/l (2-35d, Crustacea)

#### *Bacteria toxicity:*

Manganese dioxide: > 1000 mg/l (3h, active sludge; OECD 209)  
Zinc oxide: > 1000 mg/l (3h, active sludge)  
Barium oxide: > 1000 mg/l (3h, active sludge; OECD 209)  
Cobalt oxide: 120 mg/l (0.5h, active sludge; OECD 209)  
Nickel oxide: 33 mg/l (0,5h, active sludge)

#### *Algae toxicity:*

Lead monoxide: ErC50: 0.026-0.3649 mg/l (72h, algae)  
Copper oxide: ErC50: 0.0165-0.897 mg/l (72h, algae); NOEC: 0.0102 mg/l (19d, Macrocyctis pyrife)  
Cobalt oxide: ErC50: 0.144 mg/l (72h, Pseudokirchneriella subcapitata; OECD 201); NOEC: 0.0018 mg/l (7d, Champia parvula)  
Nickel oxide: ErC50: 0.0407-33.3 mg/l (algae); NOEC: 0.1-1.07 mg/l (10-14d, algae)  
Diantimony trioxide: ErC50: > 36.6 mg/l (72h, Pseudokirchneriella subcapitata; OECD 201); NOEC: 0.323 mg/l (3d, Pseudokirchneriella subcapitata; OECD 201)  
Diarsenic trioxide: NOEC: 0.065 mg/l (14d, Champia parvula)

next page: 12

# Safety Data Sheet

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



## 391061 Colored Glass, Apple-Yellow, opaque

Page 12

Revised edition: 17.12.2018

Version: 2

Printed: 08.01.2021

---

*Cadmium oxide: ErC50: 0.023 mg/l (72h, Pseudokirchneriella subcapitata; OECD 201); NOEC: 0.00085-0.063 mg/l (1-5d, algae)*

### 12.2. Persistency and Degradability

*Methods for the evaluation of the biological degradability are not applicable for inorganic substances.*

### 12.3. Bioaccumulation

*No bioaccumulation expected.*

*Bioconcentration factor (BCF):*

*Lead monoxide: 0.002 - 9.15*

*Barium oxide: 74.4 (Lepomis macrochirus)*

*Copper oxide: 0.02 - 20 (Crangon crangon)*

*Cobalt oxid: 23 (Asterias rubens)*

*Nickel oxide: 0.001 - 7305*

*Diantimony trioxide: 0.001 - 670*

### 12.4. Mobility

*No information available.*

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

*Not classified as PBT substance / Not classified as a vPvB substance.*

### 12.6. Other Adverse Effects

*Water hazard class:*

*Not hazardous.*

*Behaviour in sewage systems:*

*Further ecological effects:*

*Do not let product enter waterways or sewage system.*

*AOX Value:*

---

## 13. Disposal Considerations

### 13.1. Waste Treatment Methods

*Product:*

*Dispose of according to official national and local regulations.  
Reuse, when possible.*

*European Waste Code (EWC):*

*101112 - WASTES FROM THERMAL PROCESSES; wastes from manufacture of glass and glass products; waste glass other than those mentioned in 10 11 11*

*Uncleaned packaging:*

*Contaminated packaging must be treated like the substance.*

*Waste Code No.:*

*150106 - Mixed packaging.*

---

## 14. Transport Information

### 14.1. UN Number

*ADR, IMDG, IATA*

### 14.2. UN Proper Shipping Name

next page: 13

# Safety Data Sheet

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



## 391061 Colored Glass, Apple-Yellow, opaque

Page 13

Revised edition: 17.12.2018

Version: 2

Printed: 08.01.2021

*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:*

*IATA:*

### 14.5. Environmental Hazards

*no*

### 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

### 14.8. Further Information

*Do not store together with foodstuffs.*

---

## 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:*

*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, Registered no. 19 (Diarsenic trioxide)*

*EC. REACH, Section XVII, Restrictions on the Manufacture,*

*next page: 14*

# Safety Data Sheet

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



## 391061 Colored Glass, Apple-Yellow, opaque

Page 14

Revised edition: 17.12.2018

Version: 2

Printed: 08.01.2021

---

*Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles, Registered no. 23 (Cadmium oxide)*  
*EC. REACH, Section XVII, Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles, Registered no. 27 (Nickel monoxide)*  
*EC. REACH, Section XVII, Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles, Registered no. 63 (Lead oxide)*

*Technical instructions on air quality:*

*5.2.1. Total dust, including fine dust at  $m \geq 0.2$  kg/h, conc. 20 mg/m<sup>3</sup>, resp. at  $m \leq 0.2$  kg/h, conc. 0.15 mg/m<sup>3</sup>: not determined*

### 15.2. Chemical Safety Assessment

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

*EC SVHC-List (REACH, Annex XIV): Diarsenic trioxide*

*EC SVHC-List (REACH, Annex XIV): Lead(II) oxide; Cadmium oxide*

### 15.3. Further Information

*VOC Content: 0 %*

---

### 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.*