

## SAFETY DATA SHEET

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Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade name: Cadmium Yellow lemon

Print date: 03.02.23

Item No. 1605 000, 1605 120

Version: 8 / DE

Date revised: 03.02.2023

Replaces Version: 7 / DE

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

1605 Cadmium Yellow lemon

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Use of the substance/preparation**

artists' pigments

**Uses advised against**

Use bans according to REACH Annex XVII, entry 23, including water-based and non-water-based paints (customs tariff code 3208 and 3209), polymers. For further usage bans and information see section 15.

**1.3. Details of the supplier of the safety data sheet**

**Address**

Company: Deffner & Johann GmbH  
Adresse: Mühlackerstraße 13  
DE-97520 Röthlein  
Tel./Fax.: Tel: +49 (0) 9723 9350-0  
Fax: +49 (0) 9723 9350-25  
Internet: deffner-johann.de/de  
Email: info@deffner-johann.de

**1.4. Emergency telephone number**

+ 49 (0) 9723 9350-0 (Mo-Fr 8:00 - 16:30)

**SECTION 2: Hazards identification \*\*\***

**2.1. Classification of the substance or mixture**

This product is not classified hazardous in accordance with Regulation (EC) No 1272/2008.

**2.2. Label elements**

**Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)**

**Supplemental information**

EUH210 Safety data sheet available on request.

**2.3. Other hazards**

Free cadmium may harm lungs- and renal-function. Dust loading. Contact with acids liberates toxic gas.

\*\*\*

This substance/mixture does not contain components classified as persistent, bioaccumulative and toxic (PBT) at levels of 0.1% or higher. This substance/mixture does not contain components classified as very persistent and very bioaccumulative (vPvB) at concentrations of 0.1% or higher.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**Chemical characterization**

pigment mixture, inorganic construction  
contains Cadmium-pigments  
cadmium sulfoselenide red, Pigment Red 108, CAS 58339-34-7, EINECS 261-218-1, Registration no. 01-2119981636-24-XXXX  
and/or cadmium sulfoselenide orange, Pigment Orange 20, CAS 12656-57-4, EINECS 235-758-3, Registration no. 01-2119981636-24-XXXX  
and/or Cadmium Zinksulfide yellow, Pigment Yellow 35, CAS 8048-07-5, EINECS 232-466-8, Registration no. 01-2119981639-18-XXXX

These cadmium pigments are explicitly exempt from the harmonized classification and labelling of cadmium compounds (index no 048-001-00-5) of Annex VI of Regulation (EC) No 1272/2008 (CLP).

**Further ingredients**

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**Calcium fluoride**  
 CAS No. 14542-23-5  
 Concentration >= 1 < 10 %  
 Advice: [5]

**Note**

[5] Substance with EU occupational exposure limits

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

In case of persistent symptoms consult doctor.

**After inhalation**

Remove the casualty into fresh air and keep him calm. In the event of symptoms take medical treatment.

**After skin contact**

Wash off immediately with soap and water. Consult a doctor if skin irritation persists.

**After eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

**After ingestion**

Rinse mouth thoroughly with water. Call in a physician immediately and show him the Safety Data Sheet.

**Adhere to personal protective measures when giving first aid**

First aider: Pay attention to self-protection!

**4.2. Most important symptoms and effects, both acute and delayed**

Until now no symptoms known so far.

**4.3. Indication of any immediate medical attention and special treatment needed**

**Hints for the physician / treatment**

Treat symptomatically

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

Water spray jet, Foam, Carbon dioxide, Extinguishing measures to suit surroundings

**Non suitable extinguishing media**

Full water jet

**5.2. Special hazards arising from the substance or mixture**

In the event of fire the following can be released: Poisonous metal oxides; Sulphur oxides; Irritant and harmful combustion products.

**5.3. Advice for firefighters**

**Special protective equipment for fire-fighting**

Use self-contained breathing apparatus. Wear full protective suit.

**Other information**

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Remove persons to safety. Avoid dust formation. Do not inhale dust. Use breathing apparatus if exposed to vapours/dust/aerosol. Ensure adequate ventilation. High risk of slipping due to leakage/spillage of product. Avoid contact with skin, eyes and clothing. Use personal protective clothing. Refer to protective measures listed in Sections 7 and 8.

**6.2. Environmental precautions**

Do not discharge into the drains/surface waters/ground Do not discharge into the subsoil/soil. In case the product

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spills into sewage waters, immediately inform the authorities. Retain and dispose of contaminated wash water.

**6.3. Methods and material for containment and cleaning up**

Avoid raising dust. Dampen, pick up mechanically and dispose of. When picked up, treat material as prescribed under Section 13 "Disposal".

**6.4. Reference to other sections**

Information regarding Safe handling, see Section 7. Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

Avoid the formation and deposition of dust. Provide exhaust ventilation if dust is formed. Ensure adequate ventilation. Handle and open container with care. Provide suitable exhaust ventilation at processing machines. Use breathing apparatus when transferring large quantities without exhaust ventilation facilities. If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn. Observe the usual precautions for handling chemicals.

**Advice on protection against fire and explosion**

Keep away from sources of heat and ignition.

**7.2. Conditions for safe storage, including any incompatibilities**

**Hints on storage assembly**

Do not store together with: Acids, Oxidising agents, Do not store together with foodstuffs. Do not store together with animal feedstocks.

**Further information on storage conditions**

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from direct sunlight. Protect from extreme heat and cold.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Exposure limit values**

**Calcium fluoride**

List 2000/39/EC  
 Type Indicative Occupational Exposure Limit (EU)  
 Value 2,5 mg/m<sup>3</sup>  
 Remarks: Fluorides, inorganic

**Calcium fluoride**

List TRGS 900  
 Value 1 mg/m<sup>3</sup>  
 Maximum limit value: 4(II); Skin resorption /sensibilisation: H; Pregnancy group: Y; Status: 12/2007; Remarks: EU, DFG

**Quartz**

Type MAK  
 Value 0,05 mg/m<sup>3</sup>  
 Maximum limit value: 8; Status: DGUV 2017; Remarks: Alveolengängige Fraktion, TRGS 559, TRGS-Beurteilungsmaßstab

**Biological limit values**

**Calcium fluoride**

List TRGS 903  
 Value 7,0 mg/g creatinine

Parameter Fluoride  
 Testing material Urine (U)  
 Test date End of exposure or end of shift (b)

**Calcium fluoride**

List TRGS 903  
 Value 4,0 mg/g creatinine

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Parameter	Fluoride
Testing material	Urine (U)
Test date	Before next shift (d)

**Other information**

The national general dust limit must be observed.  
 TRGS 900: Observe the general dust threshold.

**8.2. Exposure controls**

**General protective and hygiene measures**

Do not inhale dust/fumes/aerosols. Avoid contact with skin and eyes. Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Use barrier skin cream. Observe the usual precautions for handling chemicals. Take off immediately all contaminated clothing.

**Respiratory protection**

Use breathing apparatus in dust-laden atmosphere. Short term: filter apparatus, Filter P3; If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn.

**Hand protection**

impermeable gloves

Observe the information of the glove manufacturers on permeability and breakthrough times and other workplace requirements.

**Eye protection**

Safety glasses with side protection shield

**Body protection**

Clothing as usual in the chemical industry.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

<b>Physical state</b>	Powder
<b>Colour</b>	see tradename
<b>Odour</b>	characteristic
<b>Melting point</b>	
Remarks	not determined
<b>Freezing point</b>	
Remarks	not determined
<b>Boiling point or initial boiling point and boiling range</b>	
Remarks	not determined
<b>Flammability</b>	
Remarks	not determined
<b>Upper and lower explosive limits</b>	
Remarks	not determined
<b>Flash point</b>	
Remarks	Not applicable
<b>Ignition temperature</b>	
Remarks	not determined
<b>Decomposition temperature</b>	
Remarks	not determined
<b>pH value</b>	
Remarks	not determined
<b>Viscosity</b>	
Remarks	Not applicable
<b>Solubility(ies)</b>	
Remarks	not determined
<b>Partition coefficient n-octanol/water (log value)</b>	
Remarks	not determined
<b>Vapour pressure</b>	
Remarks	not determined
<b>Density and/or relative density</b>	
Remarks	not determined

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<b>Relative vapour density</b>	
Remarks	not determined
<b>Particle characteristics</b>	
Remarks	not determined
<b>9.2. Other information</b>	
<b>Odour threshold</b>	
Remarks	not determined
<b>Evaporation rate (ether = 1) :</b>	
Remarks	not determined
<b>Solubility in water</b>	
Remarks	not determined
<b>Explosive properties</b>	
evaluation	not determined
<b>Oxidising properties</b>	
Remarks	not determined
<b>Other information</b>	
None known	

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

With acids hydrogen sulphide is produced. Violent reaction under influence of oxidising agents.

**10.2. Chemical stability**

Stable under recommended storage and handling conditions (see section 7).

**10.3. Possibility of hazardous reactions**

When used as recommended, no hazardous reactions are expected.

**10.4. Conditions to avoid**

No hazardous reactions known.

**Decomposition temperature**

Remarks not determined

**10.5. Incompatible materials**

Reactions with strong acids. With acids hydrogen sulphide is produced. Reactions with strong oxidising agents.

**10.6. Hazardous decomposition products**

Hydrogen sulfide (H<sub>2</sub>S), Poisonous metal oxides, Barium oxides, sulphurous oxides (SO<sub>x</sub>)

**SECTION 11: Toxicological information**

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Acute oral toxicity**

Remarks Based on available data, the classification criteria are not met.

**Acute dermal toxicity**

Remarks Based on available data, the classification criteria are not met.

**Acute inhalational toxicity**

Remarks Based on available data, the classification criteria are not met.

**Skin corrosion/irritation**

Remarks Based on available data, the classification criteria are not met.

**Serious eye damage/irritation**

Remarks Based on available data, the classification criteria are not met.

**Sensitization**

Remarks Based on available data, the classification criteria are not met.

**Subacute, subchronic, chronic toxicity**

Remarks not determined  
 Remarks Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.  
 Remarks Frequent persistent contact with the skin can cause skin irritation.  
 Remarks Like any foreign body, particles (dust) can cause mechanical irritation.

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**Mutagenicity**

Remarks Based on available data, the classification criteria are not met.

**Reproductive toxicity**

Remarks Based on available data, the classification criteria are not met.

**Carcinogenicity**

Remarks Based on available data, the classification criteria are not met.

**Specific Target Organ Toxicity (STOT)**

**Single exposure**

Remarks Based on available data, the classification criteria are not met.

**Repeated exposure**

Remarks Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**11.2 Information on other hazards**

**Endocrine disrupting properties with respect to humans**

No data available

**Other information**

The cadmium pigments contained in this product are, because of their extreme insolubility, much less toxic than other cadmium compounds.

**SECTION 12: Ecological information**

**12.1. Toxicity**

**General information**

In contrast to most cadmium compounds, the cadmium pigments used in this product do not pose a significant environmental hazard due to their extreme insolubility.

**12.2. Persistence and degradability**

**General information**

not determined

**12.3. Bioaccumulative potential**

**General information**

Since the cadmium pigments used in this product are very sparingly soluble in both water and all other solvents, it is unlikely that they have a bioaccumulative potential.

**Partition coefficient n-octanol/water (log value)**

Remarks not determined

**12.4. Mobility in soil**

**General information**

not determined

**12.5. Results of PBT and vPvB assessment**

**General information**

not determined

**Results of PBT and vPvB assessment**

This substance/mixture does not contain components classified as persistent, bioaccumulative and toxic (PBT) at levels of 0.1% or higher.

This substance/mixture does not contain components classified as very persistent and very bioaccumulative (vPvB) at concentrations of 0.1% or higher.

**12.6 Endocrine disrupting properties**

**Endocrine disrupting properties with respect to the environment**

No data available

**12.7. Other adverse effects**

**General information**

Contains cadmium.

**General information / ecology**

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Ecological data are not available. Do not discharge product unmonitored into the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations for the product

Product should be taken to a suitable and authorized waste disposal site in accordance with relevant regulations and if necessary after consultation with the waste disposal operator and/or the competent Authorities.

No refuse incineration.

#### Disposal recommendations for packaging

Packaging that cannot be cleaned should be disposed off as product waste.

Uncontaminated packaging may be taken for recycling.

## SECTION 14: Transport information

### Land transport ADR/RID

The product does not constitute a hazardous substance in land transport.

### Marine transport IMDG/GGVSee

The product does not constitute a hazardous substance in sea transport.

### Air transport ICAO/IATA

The product does not constitute a hazardous substance in air transport.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Water Hazard Class (Germany)

Water Hazard Class (Germany) WGK 1

Remarks Derivation of WGK according to Annex 1 No. 5.2 AwSV

#### Other regulations, restrictions and prohibition regulations

ZH 1/136 "Data Sheet: Cadmium and its compounds, Cadmium chloride (M033)"

Prohibited uses according to REACH-Regulation (EG) No. 1907/2006 Annex XVII-restrictions - item no. 23 and amendment EU Nr. 494/2011, e.g. polymers, aqueous and non-aqueous based paints,

Cadmium pigments may not be used in paints within the EU which fall within Common Customs Tariff numbers 3208 and 3209.

Prohibited uses according to end-of-lives-vehicles Directive 2000/53/EC, Electrical Directive (2002/95/EC and 2011/65/EC) and Packaging Directive (94/62/EC).

### 15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

## SECTION 16: Other information

### Abbreviations

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route

AGW: Arbeitsplatzgrenzwert

AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances that are hazardous to water)

BGW: Biologischer Grenzwert

CAS: Chemical Abstracts Service

DNEL: Derived no effect level

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

GGVSee: Gefahrgutverordnung See

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Code for Dangerous Goods

LC: Lethal concentration

LD: Lethal dose

MAK: Maximale Arbeitsplatz-Konzentration

NOEC: No observable effect concentration



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NOEL: No observable effect level

OECD: Organisation for Economic Co-operation and Development

OEL: Occupational exposure limit

PBT: Persistent, Bioaccumulative and Toxic

PNEC: Predicted no effect concentration

RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses

TRGS: Technische Regeln für Gefahrstoffe

VDI: Verein Deutscher Ingenieure

VLEP: Valeurs Limites d'exposition Professionnelle

vPvB: Very persistent and very bioaccumulative

WGK: Wassergefährdungsklasse (water hazard class)

**Supplemental information**

These data is based on our present knowledge and experience respectively supplier-information. This safety data sheet describes the product in regard to the requirements of safety. The information does not represent an assurance for certain properties. Existing laws and regulations are to be observed by the recipient of our products in own responsibility. It is the responsibility of the user, to determine if the product is suitable for the deliberate operational area and the respective intended purpose. A liability for damages in connection with the use of this information is excluded. Relevant changes compared with the previous version of the safety data sheet are marked with: \*\*\*