

## SAFETY DATA SHEET

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Die in diesem Produktdatenblatt genannten Spezifikationen dienen nur zur Produktbeschreibung und beziehen sich auf den Zeitpunkt unmittelbar nach der Produktion bzw. Import des Produktes. Sie entsprechen den Angaben des Herstellers. Eine rechtsverbindliche Zusicherung bestimmter Eigenschaften oder der Eignung für einen bestimmten Einsatzzweck kann hieraus nicht abgeleitet werden. Durch unsachgemäßen Transport und / oder unsachgemäße Lagerung können sich Änderungen ergeben. Die Angaben in diesem Produktdatenblatt entbinden den Verarbeiter nicht von eigener Prüfung der Eigenschaften des Produktes und dessen Eignung für die vorgesehene Verwendung.

# Safety Data Sheet

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

# deffner & Johann

1360 000  
1360 120

## Chromium Oxide Green Brilliant

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Revised edition: 30.08.2018

Version: 2

Printed: 04.06.2021

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

#### 1.1. Product Identifier

*Product Name:* **Chromium Oxide Green Brilliant**  
*Article No.:* 1360000, 1360120  
*UFI:*

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

*Identified uses:*  
Colorant in cosmetics, artists colors, paints and coatings; catalyts.  
*Uses advised against:*

#### 1.3. Details of the Supplier of the Safety Data Sheet (Producer/Importer)

*Company:* Deffner & Johann GmbH  
*Address:* Mühlackerstraße 13, D-97520 Röthlein, Germany  
*Tel./Fax.:* Tel. +49 9723 9350-0, Fax +49 9723 9350-25  
*Internet:* www.deffner-johann.de  
*E-Mail:* E-Mail info@deffner-johann.de  
*Importer:*

#### 1.4. Emergency No. Tel. +49 9723 9350-0 (Mo. - Fr.: 8:00 - 15:00 Uhr)

*Emergency No.:*

#### 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)*

*No classification required according to the CLP/GHS guidelines.*

*Hazard designation:*

*Not applicable.*

*Signal word:*

*Hazard designation:*

*Safety designation:*

*Hazardous components for labelling:*

#### 2.3. Other Hazards

*No special hazards known.*

### 3. Composition/Information on Ingredients

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### 3. 1. Substance

### 3. 2. Mixture

*Chemical Characterization:* Chromic oxide dihydrate. Pigment Green 18, C.I. 77289

*Information on Components / Hazardous Ingredients:*

Chromium hydrate; REACH Reg. No. 01-2119433951-39-0002	> 95 %	CAS-Nr: 12001-99-9 EINECS-Nr: 215-160-9 EC-Nr:
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Boron oxide (H360FD)	< 3.1 %	CAS-Nr: 1303-86-2 EINECS-Nr: 215-125-8 EC-Nr: 005-008-00-8
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*Additional information:*

### 4. First Aid Measures

#### 4. 1. Description of the First Aid Measures

*General information:*

*Seek medical attention in case of complaints.*

*After inhalation:*

*Supply fresh air and seek medical advice in case of complaints.  
Give artificial respiration in case breathing is not regular or if it has stopped.*

*After skin contact:*

*Wash with soap and rinse with plenty of water.  
Wash contaminated clothing before reuse.*

*After eye contact:*

*Rinse open eyes with plenty of water for at least 15 minutes.  
Consult physician.*

*After ingestion:*

#### 4. 2. Most important Symptoms and Effects, both Acute and Delayed

*Symptoms:*

*Long-term exposure may damage the lungs and respiratory tract.*

*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, water mist.*

*Unsuitable extinguishing media:*

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### 5. 2. Special Hazards arising from the Substance or Mixture

*Special hazards:*

*In case of fire: hazardous gases/vapors may be released.*

### 5. 3. Advice for Firefighters

*Protective equipment:*

*Wear suitable protective clothing.*

*Wear self-contained respiratory protective device.*

*Further information:*

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## 6. Accidental Release Measures

### 6. 1. Personal Precautions, Protective Equipment and Emergency Procedures

*Personal precautions:*

*Wear protective clothing.*

### 6. 2. Environmental Precautions

*Environmental precautions:*

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

*Contact local authorities if product pollutes soil or vegetation.*

### 6. 3. Methods and Material for Containment and Cleaning Up

*Methods and material:*

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

*Collect powder using a special dust vacuum cleaner with particle filter and dispose in a adequate resealable container.*

### 6. 4. Reference to other Sections

*Protective clothing, see Section 8.*

*See Section 13 for information on disposal.*

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## 7. Handling and Storage

### 7. 1. Precautions for Safe Handling

*Instructions on safe handling:*

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

*Avoid contact with eyes, skin and clothing.*

*Provide adequate ventilation.*

*Hygienic measures:*

*Keep away from foodstuffs and drinks.*

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

*Storage conditions:*

*Store in tightly sealed containers in a dry room.*

*Store locked up.*

*Requirements for storage areas and containers:*

*Store the product in the original container.*

*Information on fire and explosion protection:*

*Do not store together with ignitable sources, heat and fire.*

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*Storage class:*

*Further Information:*

### 7.3. Specific End Use(s)

*Further information:*

## 8. Exposure Controls/Personal Protection

### 8.1. Parameters to be Controlled

*Parameters to be controlled (DE):*

Chromium hydrate (CAS 12001-99-9; as Cr III): TLW: 2 mg/m<sup>3</sup> (inhalable fraction)

Boron oxide (CAS 1303-86-2), MAK: 15 mg/m<sup>3</sup> (inhalable fraction); STEL 75 mg/m<sup>3</sup> (inhalable fraction); TWA: 10 mg/m<sup>3</sup>

*Parameters to be controlled:*

Chromium hydrate (CAS 12001-99-9; as Cr III): TWA: 0.5 mg/m<sup>3</sup> (BE, CZ, HU, GB, FI, CH, PO, NO, SE, IE, RO); TWA: 2 mg/m<sup>3</sup> (FR, ES, AT, LU)

Boron oxide (CAS 1303-96-4): TWA: 10 mg/m<sup>3</sup> (BE, FR, ES, PO); TWA: 10 mg/m<sup>3</sup>, Ceiling: 20 mg/m<sup>3</sup> (IS); TWA: 10 mg/m<sup>3</sup>, STEL: 20 mg/m<sup>3</sup> (GB, IE); TWA: 10 mg/m<sup>3</sup>; STEL: 15 mg/m<sup>3</sup> (NO); TWA/STEL: 5 mg/m<sup>3</sup> (CH); TWA: 15 mg/m<sup>3</sup>; STEL: 75 mg/m<sup>3</sup> (A); TWA(MAK): 1.8 mg/m<sup>3</sup> (CH)

*Derived No-Effect Level (DNEL):*

Chromium Hydrate (12001-99-9): 0.5 mg/m<sup>3</sup> (inhalation)

*Predicted No-Effect Concentration (PNEC):*

*Additional Information:*

*Workplace Exposure Limit (WEL): The user must take precautions to ensure that the environmental controls employed are adequate to maintain the exposure level below the WEL.*

### 8.2. Exposure Controls

*Technical protective measures:*

*Adequate ventilation.*

*Facilities storing or utilizing this material should be equipped with an eyewash facility.*

*Personal Protection*

*General protective measures:*

*Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work.*

*Respiratory protection:*

*Required in case of insufficient ventilation (EN 143 or 149).*

*Hand protection:*

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

*Protective glove material:*

*Eye protection:*

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

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#### *Body protection:*

*Protective clothing should be laundered at the end of the working period.*

#### *Environmental precautions:*

*Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.*

*Chromium hydrate is not classified for environmental effects and its solubility is very low.*

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## 9. Physical and Chemical Properties

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

<i>Form:</i>	<i>powder</i>
<i>Color:</i>	<i>blue-green</i>
<i>Odor:</i>	<i>odorless</i>
<i>Odor threshold:</i>	<i>no information available</i>
<i>pH-Value:</i>	<i>not applicable</i>
<i>Melting temperature:</i>	<i>&gt; 450°C</i>
<i>Boiling temperature:</i>	<i>not available</i>
<i>Flash point:</i>	<i>not applicable</i>
<i>Evaporation rate:</i>	<i>not applicable</i>
<i>Flammability (solid, gas):</i>	<i>non-combustible</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>Density:</i>	<i>3.21 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>

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*Auto-ignition temperature:*

*not applicable*

*Decomposition temperature:*

*not applicable*

*Viscosity, dynamic:*

*not applicable*

*Explosive properties:*

*not explosive*

*Oxidizing properties:*

*not oxidizing*

*Bulk density:*

*ca. 400 kg/m<sup>3</sup>*

#### 9.2. Further Information

*Solubility in solvents:*

*Viscosity, kinematic:*

*Burning class:*

*Solvent content:*

*Solid content:*

*Particle size:*

*Other information:*

*No further information.*

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#### 10. Stability and Reactivity

##### 10.1. Reactivity

*Stable if used according to specifications.*

*Boron oxide may react slowly with water to form boric acid.*

##### 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:*

*Avoid humidity.*

*Thermal decomposition:*

##### 10.5. Incompatible Materials

*Strong oxidizing agents.*

##### 10.6. Hazardous Decomposition Products

*Chromium oxides*

##### 10.7. Further Information

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#### 11. Toxicological Information

##### 11.1. Information on Toxicological Effects

*Acute Toxicity*

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#### *LD50, oral:*

*Boron oxide (impurity) (1303-86-2): 3163 mg/l (mouse); other: 1868 (mouse)*

*Chromic oxide (1308-38-9): > 5000 mg/kg (rat)*

#### *LD50, dermal:*

*No information available.*

#### *LC50, inhalation:*

*Chromic oxide (1308-38-9): > 5.41 mg/l (4h; rat)*

*High concentrations of dust may irritate throat and respiratory system and cause coughing.*

#### *Primary effects*

#### *Irritant effect on skin:*

*Non irritating*

#### *Irritant effect on eyes:*

*Dust may irritate eyes.*

#### *Inhalation:*

*Can cause irritation of the respiratory system.*

#### *Ingestion:*

*Not classified as harmful.*

#### *Sensitization:*

*No sensitizing effects known.*

#### *Mutagenicity:*

*No mutagenic effects known.*

#### *Reproductive toxicity:*

*May damage fertility. May damage the unborn child.*

*A human study of occupationally exposed borate worker population showed no adverse reproductive effects. Animal studies indicate that boric acid reduces or inhibits sperm production, causes testicular atrophy, and, when given to pregnant animals during gestation, may cause developmental changes.*

*These feed studies were conducted under chronic exposure conditions leading to doses well in excess of those that could occur through inhalation of dust in the occupational setting.*

#### *Carcinogenicity:*

*This product is not considered to be a carcinogen by IARC,ACGIH, NTP or OSHA.*

*Chromium ion (Cr3+) (CAS 16065-83-1):*

*IARC: 3, Not classifiable as to carcinogenicity to humans.*

#### *Teratogenicity:*

*Not considered to be teratogenic.*

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

*Single exposure: no information available.*

*Repeated exposure: no information available.*

#### *Additional toxicological information:*

*No information available.*

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### 12. Ecological Information

#### 12.1. Aquatic Toxicity

*Fish toxicity:*

*Chromium hydrate: LC0: > 10 g/l (96h, Danio rerio)*

*Boron oxide: LC50: 150 mg/l (24d, Oncorhynchus mykiss)*

*Daphnia toxicity:*

*Boron oxide: EC50: 370-490 mg/l (48h, Daphnia magna)*

*Bacteria toxicity:*

*Chromium hydrate: NOEC: > 6480 g/l (24h, Pseudomonas fluorescens)*

*Algae toxicity:*

*No information available.*

#### 12.2. Persistency and Degradability

*No information available.*

#### 12.3. Bioaccumulation

*No bioaccumulation.*

#### 12.4. Mobility

*No information available.*

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

*Not applicable.*

#### 12.6. Other Adverse Effects

*Water hazard class:*

*Do not let product contaminate ground water, waterways or sewage system.*

*Behaviour in sewage systems:*

*Further ecological effects:*

*AOX Value:*

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### 13. Disposal Considerations

#### 13.1. Waste Treatment Methods

*Product:*

*Dispose of according to official national and local regulations.*

*European Waste Code (EWC):*

*Waste codes should be assigned by the user based on the application for which the product was used.*

*Uncleaned packaging:*

*Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.*

*Waste Code No.:*

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### 14. Transport Information

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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:	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	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:	1, slightly hazardous for water (German Regulation)
	Local regulations on chemical accidents:	
	Employment restrictions:	
	Restriction and prohibition of application:	

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#### *Technical instructions on air quality:*

#### 15. 2. Chemical Safety Assessment

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

#### 15. 3. Further Information

*Listed in the following inventories:*

*EINECS (EU), TSCA (US), AICS (AUS), DSL (CA), PICCS (PH), KECL (KR), ENCS (JP), NZIoC (NZ), IECSC (CN), NECI (TW)*

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

*Regulation (EC) 850/2004 - Persistent organic pollutants and amending Directive 79/117/EEC: not regulated / not applicable*

*Regulation (EC) 689/2008 concerning the export and import of dangerous chemicals: not regulated / not applicable*

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#### 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.*