deffner & Johann

Supplies for RESTORATION | CONSERVATION | ART HANDLING – SINCE 1880

SAFETY DATA SHEET

1790295 | Raphael Art Pigments Chromgrün

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Safety Data Sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: Raphael Art Pigments Chromgrün

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

Intended use: Dispersible pigment in aqueous solution, oils and resins

1.3. Details of the supplier of the safety data sheet

Name: Deffner & Johann GmbH
Full address: Mühläckerstr. 13, 97520 Röthlein
District and Country: Germany
tel.004909723 9350-0
e-mail address: info@deffner-johann.de

1.4. Emergency telephone number

tel.004909723 9350-0 (Hours:8.00-12.00/14.00-15.00)

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).
Hazard classification and indication: Not classified

2.2. Label elements

Hazard pictograms: --

Signal words: --

Hazard statements:

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Precautionary statements:

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2.3. Other hazards

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

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	x = Cone. %	Classification 1272/2008 (CLP)
Calcium Sulphate		
CAS 7778-18-9	55 ≤ x < 60	Substance with a community workplace exposure limit.
EC 231-900-3		
INDEX -		
CALCIUM CARBONATE		
CAS 471-34-1	15 ≤ x < 20	
EC 207-439-9		
INDEX -		
Yellow Iron Oxide		
CAS 51274-00-1	15 ≤ x < 20	Substance with a community workplace exposure limit.
EC 257-098-5		
INDEX -		
C.I. Pigment Brown 24		
CAS 68186-90-3	4 ≤ x < 5	Substance with a community workplace exposure limit.
EC 269-052-1		
INDEX -		
COPPER PHTHALOCYANINE		
CAS 147-14-8	1 ≤ x < 2	Substance with a community workplace exposure limit.
EC 205-685-1		
INDEX -		

SECTION 4. First aid measures

4.1. Description of first aid measures

Not specifically necessary. Observance of good industrial hygiene is recommended.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Follow doctor's orders.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal firefighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

If there are no contraindications, spray powder with water to prevent the formation of dust.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product and place it in containers for recovery or disposal. If there are no contraindications, use jets of water to eliminate product residues.
Make sure the leakage site is well aired. Evaluate the compatibility of the container to be used, by checking section 10. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

7.2. Conditions for safe storage, including any incompatibilities

Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

See section 1.2.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

EU TLV-ACGIH ACGIH 2017

Calcium Sulphate
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min			
		mg/m3	PPm	mg/m3	PPm		
TLV-ACGIH		10				INHAL	

CALCIUM CARBONATE

Predicted no-effect concentration - PNEC							
Normal value of STP microorganisms				100	mg/l		
Health - Derived no-effect level - DNEL / DMEL							
	Effects on consumers				Effects on workers		
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation								10 mg/m3

Yellow Iron Oxide
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min			
		mg/m3	PPm	mg/m3	PPm		
TLV-ACGIH		5					

C.I. Pigment Brown 24

Predicted no-effect concentration - PNEC							
Normal value in fresh water				0,1	mg/l		
Normal value in marine water				0,01	mg/l		
Normal value for water, intermittent release				1	mg/l		
Normal value of STP microorganisms				1000	mg/l		
Health - Derived no-effect level - DNEL / DMEL							
	Effects on consumers				Effects on workers		
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation			3 mg/m3				4 mg/m3	

COPPER PHTHALOCYANINE
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min			
		mg/m3	PPm	mg/m3	PPm		
TLV-ACGIH		10				INHAL	
TLV-ACGIH		3				RESP	

Predicted no-effect concentration - PNEC							
Normal value in fresh water				10	mg/kg		
Normal value in marine water				1	mg/kg		
Normal value of STP microorganisms				75	mg/l		
Normal value for the terrestrial compartment				1	mg/kg		
Health - Derived no-effect level - DNEL / DMEL							
	Effects on consumers				Effects on workers		
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral				45 mg/kg				
Inhalation								4 mg/m3
Skin				225 mg/kg				450 mg/kg

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

During the risk assessment process, it is essential to take into consideration the ACGIFI occupational exposure levels for inert particulate not otherwise classified (PNOC respirable fraction: 3 mg/m3; PNOC inhalable fraction: 10 mg/m3). For values above these limits, use a P type filter, whose class (1, 2 or 3) must be chosen according to the outcome of risk assessment.

8.2. Exposure controls

Comply with the safety measures usually applied when handling chemical substances.

HAND PROTECTION
None required.

SKIN PROTECTION
None required.

EYE PROTECTION
None required.

RESPIRATORY PROTECTION
Use a type P filtering facemask, whose class (1, 2 or 3) and effective need, must be defined according to the outcome of risk assessment (see standard EN 149).

ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	powder
Colour	green
Odour	no odour
Odour threshold	Not available
PH	not applicable
Melting point / freezing point	not applicable
Initial boiling point	not applicable
Boiling range	not applicable
Flash point	Not inflammable.
Evaporation Rate	not applicable
Flammability of solids and gases	Not inflammable.
Lower inflammability limit	Not inflammable.
Upper inflammability limit	Not inflammable.
Lower explosive limit	Not explosive.
Upper explosive limit	Not explosive.
Vapour pressure	not applicable
Vapour density	not applicable
Relative density	Not available
Solubility	insoluble in water
Partition coefficient: n-octanol/water	not applicable
Auto-ignition temperature	Not self-igniting.
Decomposition temperature	Not available
Viscosity	not applicable
Explosive properties	Not explosive.
Oxidising properties	Not available

9.2. Other information

No other information.

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

CALCIUM CARBONATE: Decomposes at temperatures above 800°C/1472°F.
COPPER PHTHALOCYANINE: Decomposes at temperatures above 350°C/662°F.

10.3. Possibility of hazardous reactions

Dangerous reactions are not expected under normal use and storage conditions.

Calcium carbonate: Reacts with acids with CO2 formation.

10.4. Conditions to avoid

Avoid environmental dust build-up.

10.5. Incompatible materials

Avoid contact with acids, strong alkalis and strong oxidants.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, vapours potentially dangerous to health may be released.

CALCIUM CARBONATE: May develop: calcium oxides,carbon oxides.
COPPER PHTHALOCYANINE: May develop: nitric oxide,carbon oxides,copper oxides.

SECTION 11. Toxicological information

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

No data available.

Information on likely routes of exposure

No data available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

No data available.

Interactive effects

No data available.

ACUTE TOXICITY

LC50 (Inhalation) of the mixture: Not classified (no significant component)
LD50 (Oral) of the mixture: Not classified (no significant component)
LD50 (Dermal) of the mixture: Not classified (no significant component)

Yellow Iron Oxide
LD50 (Oral) > 5000 mg/kg Rat

COPPER PHTHALOCYANINE
LD50 (Oral) > 2000 mg/kg Rat
LD50 (Dermal) > 5000 mg/kg Rat

CALCIUM CARBONATE
LD50 (Oral) > 2000 mg/kg Rat
LD50 (Dermal) > 2000 mg/kg Rat
LC50 (Inhalation) > 3 mg/l Rat
NOAEL(Orale): 1300 mg/Kg.

C.I. Pigment Brown 24
LD50 (Oral) > 10000 mg/kg Rat

Calcium Sulphate
LD50 (Oral) > 1581 mg/kg Rat
LC50 (Inhalation) > 2,61 mg/l Rat

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

Yellow iron Oxide	
LC50 - for Fish	> 1000 mg/l/96h Idus idus dorata
C.I. Pigment Brown 24	
LC50 - for Fish	> 10000 mg/l/96h Leuciscus Idus
EC50 - for Crustacea	> 100 mg/l/48h Daphnia Magna
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h Desmodesmus Subspicatus

12.2. Persistence and degradability

COPPER PHTHALOCYANINE	
Solubility in water	0,001 mg/l
NOT rapidly degradable	
CALCIUM CARBONATE	
Solubility in water	0,1 - 100 mg/l

12.3. Bioaccumulative potential

COPPER PHTHALOCYANINE	
BCF	< 2,1

12.4. Mobility in soil.

No data avalaible.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

No data avalaible.

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Solid residues may be suitable for disposal in an authorised landfill site.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EC: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

None

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Information not available

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATADGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanita) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on howto use chemical products.