

Safety Data Sheet

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



23310 Permanent Yellow medium

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Revised edition: 02.01.2023

Version: 9

Printed: 19.12.2023

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

1.1. Product Identifier

Product Name: Permanent Yellow medium

Article No.: 23310

UFI: --

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

Identified uses:

*Chemical-technical industry
Paint and varnish industry
Plastics industry.
Coloring agent / organic pigment*

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

E-Mail: 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:

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2.3. Other Hazards

Risk of dust explosion.

3. Composition/Information on Ingredients

3.1. Substance

3.2. Mixture

Chemical Characterization: C.I. Pigment Yellow 154

Information on Components / Hazardous Ingredients:

N-(2,3-dihydro-2-oxo-1H-benzimidazol-5-yl)-3-oxo-2-[[2-(trifluoromethyl)phenyl]azo]butyramide; REACH Reg. No. 01-2119960638-25-0000	100 %	CAS-Nr: 68134-22-5 EINECS-Nr: 268-734-6 EC-Nr:
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Additional information:

*This product/this mixture contains nanoforms.
C.I. Pigment Yellow 154 (CAS No. 68134-22-5)
Total content of nanomaterials: 60 - 100 %
Form: Cubes: 20-10% (TEM); Spheres: 0-50 % (TEM); Rods: 0-30 % (TEM)
Particle characteristics:
Level of dustiness: Index: 31.650 1/mg (SMPS; DIN EN 17199-3);
1.389 1/ml (OPS; DIN EN 17199-3)
Particle size distribution: $d_{10} = 0.035 \mu\text{m} \pm 0.025 \mu\text{m}$; $d_{50} = 0.065 \mu\text{m} \pm 0.045 \mu\text{m}$; $d_{90} = 0.135 \mu\text{m} \pm 0.095 \mu\text{m}$
Specific surface area: $32.5 \text{ m}^2/\text{g} \pm 27.5 \text{ m}^2/\text{g}$ (BET); Crystallinity:
crystalline; Surface treatment: no*

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 keep patient calm.

After skin contact:

Wash with soap and rinse with plenty of water.

After eye contact:

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

After ingestion:

Do not induce vomiting. Consult physician immediately.

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.

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5. Fire-Fighting Measures

5.1. Extinguishing Media

Suitable extinguishing media:

Foam, water jet.

Unsuitable extinguishing media:

Carbon dioxide, water jet, dry extinguishing powder.

5.2. Special Hazards arising from the Substance or Mixture

Special hazards:

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

In case of fire: formation of nitrogen oxide, hydrogen fluoride.

5.3. Advice for Firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Wear suitable protective clothing.

Further information:

6. Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions:

Wear protective clothing.

Avoid formation of dust.

6.2. Environmental Precautions

Environmental precautions:

Prevent contamination of soils, drains and surface water.

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.

Take precautionary measures against static discharges; risk of dust explosion.

6.4. Reference to other Sections

For information for safe handling see Section 7.

Dispose of contaminated material according to Section 13.

7. Handling and Storage

7.1. Precautions for Safe Handling

Instructions on safe handling:

No special measures necessary if properly handled.

Avoid formation of dust.

Hygienic measures:

Take off contaminated clothing immediately and reuse only after thoroughly cleaning these.

Do not inhale dust. Wash hands before breaks and at the end of work.

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7.2. Conditions for Safe Storage, including any Incompatibilities

Storage conditions:

*Keep container tightly closed
Store in a cool and dry place.*

Requirements for storage areas and containers:

Information on fire and explosion protection:

*Keep away from sources of ignition - do not smoke. Take measures to prevent electrostatic discharge.
Dust may form an explosive mixture with air.
Dust explosion class 1 (Kst-value > 0 - 200 bar m/s).
Do not store together with: foodstuffs and animal feed.*

Storage class:

11; Combustible solids (TRGS 510)

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):

Does not contain any components with workplace limit values.

Parameters to be controlled:

Derived No-Effect Level (DNEL):

No values available.

Predicted No-Effect Concentration (PNEC):

No values available.

Additional Information:

8.2. Exposure Controls

Technical protective measures:

Provide adequate ventilation/exhaust system.

Personal Protection

General protective measures:

*The usual precautionary measures are to be adhered to when handling chemicals.
Do not inhale dust. Do not eat, drink or smoke while working.
Wash hands before breaks and at the end of work.
Wash contaminated clothes before reuse.*

Respiratory protection:

In case of formation of dust.

Hand protection:

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Protective gloves

Protective glove material:

Nitrile rubber (NBR)

Eye protection:

Safety glasses (EN 166)

Body protection:

Protective clothing.

Environmental precautions:

Prevent from getting into the soil, surface water and sewage system.

9. Physical and Chemical Properties

9.1. Information on Basic Physical and Chemical Properties

Form: powder

Color: yellow

Odor: odorless

Odor threshold:
no information available

pH-Value: 5.5 - 8.5

Melting temperature:
not determined

Boiling temperature:
not available

Flash point:
not applicable

Evaporation rate:
not applicable

Flammability (solid, gas):
not flammable

Upper explosion limit:
no information available

Lower explosion limit:
no information available

Vapor pressure:
not applicable

Vapor density:

Density: 1.59 g/cm³ (20°C)

Solubility in water: < 0.02 mg/l (20°C)

Coefficient of variation (n-Octanol/Water):

not determined

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Auto-ignition temperature: 290°C
Method: VDI 2263 (Grewer)

Decomposition temperature: > 330°C
heat rate: 3 K/min

Viscosity, dynamic:
not applicable

Explosive properties:
Dust can form explosive mixtures with air.

Oxidizing properties:
no information available

Bulk density: 160 kg/m³

9.2. Further Information

Solubility in solvents:

Viscosity, kinematic:

Burning class: BZ 3
Local burning without spreading

Solvent content:

Solid content:

Particle size: 6.3 µm
Method: Laser diffraction with dry dispersion in air.
Partikel characteristics: Further details regarding the determination of nanoforms see Section 3.

Other information:
Minimum ignition energy: 56 - 110 mJ
Not sensitive to impact.
Metal corrosion: non-corrosive to metal.
Dust explosion class: ST1

10. Stability and Reactivity

10.1. **Reactivity**
No decomposition if used according to specifications.

10.2. **Chemical Stability**
Stable if used according to specifications.

10.3. **Possibility of Hazardous Reactions**
Risk of dust explosion.

10.4. **Conditions to Avoid**
Conditions to avoid:
Avoid heat, open fire and other ignition sources.

Thermal decomposition:

10.5. **Incompatible Materials**
There are no known products which are incompatible with this product.

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10.6. Hazardous Decomposition Products

None if handled according to specifications.

10.7. Further Information

Not corrosive to metals.

11. Toxicological Information

11.1. Information on Hazard Classes as defined in Regulation (EC) No. 1272/2008

Acute Toxicity

LD50, oral: > 15000 mg/kg (rat; OECD 401)

LD50, dermal:

No information available.

LC50, inhalation:

No information available.

Primary effects

Irritant effect on skin:

Non irritating (24h, rabbit; FDA)

Irritant effect on eyes:

Non-irritating to eyes (24h, rabbit; FDA)

Inhalation:

No information available.

Ingestion:

No information available

Sensitization:

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

Non sensitizing (guinea pig; OECD 406).

Mutagenicity:

In vitro genetic-toxicity: Ames-Test negative (Salmonella typhimurium; OECD 471)

Gentoxizität in vitro: Ames-Test negative (Escherichia coli; OECD 471)

In vitro genetic-toxicity: negative (OECD 476, mouse lymphoma cells)

In vitro Mammalian Chromosomal Aberration Test (ovaries of the chin. hamster (CHO): OECD 473): negative

In vivo genetic-toxicity: micronucleus negative (3h, 50 - 500 - 5000 mg/kg, mouse m/f; OECD 474)

Reproductive toxicity:

One Generation Study

NOAEL F1: 1000 mg/kg (Exposure period: 4 w (m), 7 w (f), Frequency of treatment: once daily, Expo-time before mating/male: 14d, Expo-time before mating/female: 14d, Dosage: 100 - 300 - 1000 mg/kg, rat, male/female) (OECD 421)

Carcinogenicity:

No relevant data found.

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Teratogenicity:

No information available.

Specific target organ toxicity (STOT):

Repeated exposure: NOAEL (oral): 1000 mg/kg (28d, Dosage: 100 - 300 - 1000 mg/kg, rat; OECD 407)

Aspiration hazard:

No risk of aspiration.

11.2. Information on other Hazards

Endocrine Disrupting Properties:

This substance/mixture does not contain any components with endocrine disrupting properties in a percentage of 0.1 or greater, according to Article 57(f) of the REACH Regulation (EC) No. 1907/2006 or the Delegated Regulation (EC) 2017/2100 or the Delegated Regulation (EC) 2018/605.

12. Ecological Information

12.1. Aquatic Toxicity

Fish toxicity:

EC0: 1 mg/l (96h, *Danio rerio*; OECD 203)
LC50: > 1 mg/l (96h, *Danio rerio*; OECD 203)

Daphnia toxicity:

EC0: 100 mg/l (48h, *Daphnia magna*; OECD 202)
EC50: > 100 mg/l (48h, *Daphnia magna*; OECD 202)
NOEC: > 1 mg/l (21d, *Daphnia magna*; OECD 211)

Bacteria toxicity:

EC50: > 1000 mg/l (3h, active sludge; OECD 209)
Toxicity to soil dwelling organisms:
NOEC: 1000 mg/kg (56d, *Eisenia foetida*; OECD 222)
LOEC: > 1000 mg/kg (56d, *Eisenia foetida*; OECD 222)
Toxicity to Terrestrial Plants:
NOEC: 1000 mg/kg (21d, *Brassica napus*; OECD 208)
NOEC: 1000 mg/kg (21d, *Avena sativa*; OECD 208)
NOEC: 1000 mg/kg (21d, *Dicotyledonae: Glycine max*; OECD 208)

Algae toxicity:

EC50: > 1 mg/l (72h, *Desmodesmus subspicatus*; OECD 201)
NOEC: 1 mg/l (72h, *Desmodesmus subspicatus*; OECD 201)

12.2. Persistency and Degradability

No information available.

12.3. Bioaccumulation

No information available.
logPOW: < 3

12.4. Mobility

No information available.

12.5. Results of PBT- und vPvP Assessment

This substance is not classified as PBT (persistent,

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bioaccumulative, toxic), nor as vPvB (very persistent, very bioaccumulative).

12.6. Endocrine Disrupting Properties

This substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) No. 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1 % or higher.

12.7. Other Adverse Effects

Water hazard class:

1, slightly hazardous

Behaviour in sewage systems:

Further ecological effects:

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

AOX Value:

13. Disposal Considerations

13.1. Waste Treatment Methods

Product:

Dispose of according to official national and local regulations.

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 / DOT (US) (land transportation).

IMDG/IATA:

Not hazardous goods

14.3. Transport Hazard Classes

ADR Class:

not applicable

Hazard no.:

Classification code:

Tunnel restriction code:

IMDG Class (sea):

not applicable

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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. Maritime Transport in Bulk according to IMO Instruments

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 (according to the German Regulation AwSV)

Local regulations on chemical accidents:

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: not applicable

Technical instructions on air quality:

15. 2. Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this product.

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 Layer: not regulated / not applicable

Regulation (EU) 2019/1021 - Persistent organic pollutants: not regulated / not applicable

Regulation (EC) 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors: not forbidden and/or not restricted

Regulation (EC) 649/2012 concerning the export and import of

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dangerous chemicals: 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.