

# Pigment Black 31

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 10/11/2023 Revision date: 10/11/2023 Version: 1.0 SDS Number: P2023091106

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

#### 1.1. Product identifier

Product form : Substance  
Product name : Pigment Black 31  
Chemical name : 7,18-bis(2-phenylethyl)-7,18-diazaheptacyclo[14.6.2.2<sup>2,5</sup>.0<sup>3,12</sup>.0<sup>4,9</sup>.0<sup>13,23</sup>.0<sup>20,24</sup>]hexacosa-1(23),2,4,9,11,13,15,20(24),21,25-decaene-6,8,17,19-tetrone  
CAS-No. : 67075-37-0  
EC-No. : 266-564-7  
Formula : C40H26N2O4  
Other identification : S-1088

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

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Mainly used for coloring coatings with special infrared absorption performance and coloring materials for other camouflage purposes; photovoltaic and new energy materials and automotive paint.

##### 1.2.2. Uses advised against

No additional information available

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

Liaoning Honggang Chemicals Co., Ltd  
Wanhe 2 Road, National Aromatics Base, Hongwei District, Liaoyang City, Liaoning Prov,  
China T 0086-419-7675988 / 0086-15141925666  
F 0086-419-7675289  
Sales@liangangchem.com

#### 1.4. Emergency telephone number

No additional information available

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

##### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

#### 2.3. Other hazards

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Name : Pigment Black 31

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
7,18-bis(2-phenylethyl)-7,18-diazaheptacyclo[14.6.2.2 <sup>2</sup> .5.0 <sup>3</sup> .12.0 <sup>4</sup> .9.0 <sup>13</sup> .23.0 <sup>20</sup> .24]hexacosa-1(23),2,4,9,11,13,15,20(24),21,25-decaene-6,8,17,19-tetrone	CAS-No.: 67075-37-0 EC-No.: 266-564-7	99	Not classified
Perylo[3,4-cd:9,10-c'd']dipyran-1,3,8,10-tetrone	CAS-No.: 128-69-8 EC-No.: 204-905-3	0.5	STOT RE 2, H373
Water	CAS-No.: 7732-18-5 EC-No.: 231-791-2	0.5	Not classified

Full text of H- and EUH-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing Obtain medical attention if breathing difficulty persists.
First-aid measures after skin contact	: Wash skin with plenty of water. Seek medical attention if ill effect or irritation develops.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Seek medical attention if ill effect or irritation develops.
First-aid measures after ingestion	: Rinse mouth. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
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### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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

Fire hazard	: On combustion forms: Carbon oxides, nitrogen oxides
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Thermal decomposition can lead to the release of irritating gases and vapours.

### 5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protective equipment for firefighters	: Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection". Wear suitable protective clothing. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

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

- For containment : Collect spillage.
- Methods for cleaning up : Mechanically recover the product. On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.
- Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13 : "Disposal considerations".

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Provide good ventilation in process area to prevent formation of vapour.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Handle in accordance with good industrial hygiene and safety procedures.

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

- Storage conditions : Keep container tightly closed in a cool, well-ventilated place. Keep container closed when not in use. Store in a well-ventilated place. Keep cool.
- Suitable packaging material : Box or Carboard Drum

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

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### 8.1.3. Air contaminants formed

No additional information available

### 8.1.4. DNEL and PNEC

No additional information available

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

### 8.2.2. Personal protection equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### 8.2.2.1. Eye and face protection

##### Eye protection:

Chemical goggles or safety glasses. Use eye protection according to ISO 16321-1. Safety glasses

#### 8.2.2.2. Skin protection

##### Skin and body protection:

Wear suitable protective clothing

##### Hand protection:

Wear protective gloves. Wear suitable gloves tested to ISO 374-1. protective gloves

#### 8.2.2.3. Respiratory protection

##### Respiratory protection:

Wear appropriate mask. Wear suitable respiratory equipment in case of insufficient ventilation

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

#### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

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

Physical state	: Powder
Colour	: Black
Odour	: Odourless
Odour threshold	: Not available
Melting point	: 418 °C
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Not flammable.
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: 6-7
pH solution	: Not available

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Viscosity, kinematic	: Not applicable
Solubility	: <2 µg/L at 20°C and at pH 6.9 in water
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 427 kg/m <sup>3</sup> at 20°C
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

#### **7,18-bis(2-phenylethyl)-7,18-diazaheptacyclo[14.6.2.2<sup>2,5</sup>.0<sup>3,12</sup>.0<sup>4,9</sup>.0<sup>13,23</sup>.0<sup>20,24</sup>]hexacos-1(23),2,4,9,11,13,15,20(24),21,25-decaene-6,8,17,19-tetrone (67075-37-0)**

LD50 oral rat	> 5000 mg/kg bodyweight [OECD 401]
LC50 inhalation rat	> 5.2 mg/L air [OECD 403]

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) Rabbit: slightly irritating, below the level of regulatory significance [OECD 404]
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) Rabbit: not irritating [OECD 405]
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met) Skin sensitisation: Mouse: not sensitizing [OECD 429]

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Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met) In vitro: Chinese hamster Ovary (CHO): negative [OECD 476]
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

No additional information available

#### 11.2.2. Other information

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)

#### 7,18-bis(2-phenylethyl)-7,18-diazaheptacyclo[14.6.2.2<sup>2</sup>,<sup>5</sup>.0<sup>3</sup>,<sup>12</sup>.0<sup>4</sup>,<sup>9</sup>.0<sup>13</sup>,<sup>23</sup>.0<sup>20</sup>,<sup>24</sup>]hexacos-1(23),2,4,9,11,13,15,20(24),21,25-decaene-6,8,17,19-tetrone (67075-37-0)

LC50 - Fish [1]	> 1050 mg/l (Exposure time: 96 h - Species: Oryzias latipes [static] Source: ECHA)
EC50 - aquatic invertebrates	> 100 mg/l (Exposure time: 48 h - Species: Daphnia magna [static] Source: ECHA)
EC50 - algae	> 100 mg/l (Exposure time: 72 h - Species: Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum) Source: ECHA) [OECD 201]

#### Perylo[3,4-cd:9,10-c'd']dipyran-1,3,8,10-tetrone (128-69-8)

LC50 - Fish [1]	> 5000 mg/l (Exposure time: 96 h - Species: Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum) [static] Source: ECHA)
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### 12.2. Persistence and degradability

#### Pigment Black 31

Persistence and degradability	Not established.
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#### 7,18-bis(2-phenylethyl)-7,18-diazaheptacyclo[14.6.2.2<sup>2</sup>,<sup>5</sup>.0<sup>3</sup>,<sup>12</sup>.0<sup>4</sup>,<sup>9</sup>.0<sup>13</sup>,<sup>23</sup>.0<sup>20</sup>,<sup>24</sup>]hexacos-1(23),2,4,9,11,13,15,20(24),21,25-decaene-6,8,17,19-tetrone (67075-37-0)

Persistence and degradability	poorly biodegradable. [OECD 301F]
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### 12.3. Bioaccumulative potential

#### Pigment Black 31

Bioaccumulative potential	Not established.
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#### 7,18-bis(2-phenylethyl)-7,18-diazaheptacyclo[14.6.2.2<sup>2</sup>,<sup>5</sup>.0<sup>3</sup>,<sup>12</sup>.0<sup>4</sup>,<sup>9</sup>.0<sup>13</sup>,<sup>23</sup>.0<sup>20</sup>,<sup>24</sup>]hexacos-1(23),2,4,9,11,13,15,20(24),21,25-decaene-6,8,17,19-tetrone (67075-37-0)

Partition coefficient n-octanol/water (Log Pow)	1.93 (at 23 °C)
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#### Perylo[3,4-cd:9,10-c'd']dipyran-1,3,8,10-tetrone (128-69-8)

Partition coefficient n-octanol/water (Log Pow)	< 1.3 (at 25 °C (at pH 4)
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### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

The substance is not PBT / vPvB

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

Additional information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Product/Packaging disposal recommendations : Dispose of in a safe manner in accordance with local/national regulations.  
Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### Inland waterway transport

Not regulated

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### Rail transport

Not regulated

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

##### REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

##### REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

##### POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

##### Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

##### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### 15.1.2. National regulations

##### Germany

- Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG).  
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).
- Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1; ID No. 9078).
- Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

##### Netherlands

- SZW-lijst van kankerverwekkende stoffen : The substance is not listed
- SZW-lijst van mutagene stoffen : The substance is not listed
- SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed
- SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : The substance is not listed
- SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

##### Denmark

- Danish National Regulations : Pregnant/breastfeeding women working with the product must not be in direct contact with it

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out



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### SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Effective concentration for 50 percent of test population (median effective concentration)
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Lethal concentration for 50 percent of test population (median lethal concentration)
LD50	Lethal dose for 50 percent of test population (median lethal dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulation concerning the International Carriage of Dangerous Goods by Railways
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
H373	May cause damage to organs through prolonged or repeated exposure.

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### Full text of H- and EUH-statements:

STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
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Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.