1. Identification

Product identifier used on the label

Orasol® Black X51

Recommended use of the chemical and restriction on use
Recommended use*: pigment
Suitable for use in industrial sector: Paints, lacquers and varnishes industry

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
BASF Colors & Effects USA LLC
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family: metal complex dye
Synonyms: C.I. Solvent Black 27

2. Hazards Identification


Classification of the product

<table>
<thead>
<tr>
<th>Combustible Dust</th>
<th>Combustible Dust (1)</th>
<th>Combustible Dust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Sens.</td>
<td>1B</td>
<td>Skin sensitization</td>
</tr>
<tr>
<td>Repr.</td>
<td>1B (unborn child)</td>
<td>Reproductive toxicity</td>
</tr>
<tr>
<td>STOT RE</td>
<td>2</td>
<td>Specific target organ toxicity — repeated exposure</td>
</tr>
</tbody>
</table>

Label elements
Pictogram:

Signal Word: Danger

Hazard Statement:
- H317 May cause an allergic skin reaction.
- H360 May damage the unborn child.
- H373 May cause damage to organs (Entire body) through prolonged or repeated exposure.

Precautionary Statements (Prevention):
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P260 Do not breathe dust/gas/mist/vapours.
- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P272 Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):
- P314 Get medical advice/attention if you feel unwell.
- P303 + P352 IF ON SKIN (or hair): Wash with plenty of soap and water.
- P308 + P311 IF exposed or concerned: Call a POISON CENTER or doctor/physician.
- P362 + P364 Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Storage):
- P405 Store locked up.

Precautionary Statements (Disposal):
- P501 Dispose of contents/container to hazardous or special waste collection point.

Hazards not otherwise classified

The product is under certain conditions capable of dust explosion.

3. Composition / Information on Ingredients


<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Weight %</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>85186-64-7</td>
<td>&gt;= 0.0 - &lt; 50.0%</td>
<td>Amines, C10-14-branched and linear alkyl, [1-[2-hydroxy-4-nitrophenyl]azo]-2-naphthalenolato(2-)][1-[2-hydroxy-5-nitrophenyl]azo]-2-naphthalenolato(2-)]chromate(1-)</td>
</tr>
<tr>
<td>85186-66-9</td>
<td>&gt;= 0.0 - &lt; 25.0%</td>
<td>Amines, C10-14-branched and linear alkyl, bis[1-[2-hydroxy-4-nitrophenyl]azo]-2-naphthalenolato(2-)chromate(1-)</td>
</tr>
<tr>
<td>85186-67-0</td>
<td>&gt;= 0.0 - &lt; 25.0%</td>
<td>Amines, C10-14-branched and linear alkyl, bis[1-[2-hydroxy-5-nitrophenyl]azo]-2-naphthalenolato(2-)</td>
</tr>
</tbody>
</table>
4. First-Aid Measures

**Description of first aid measures**

**General advice:**
Immediately remove contaminated clothing. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). First aid personnel should pay attention to their own safety.

**If inhaled:**
If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

**If on skin:**
Wash affected areas with water while removing contaminated clothing. Seek medical attention.

**If in eyes:**
Wash affected eyes for at least 15 minutes under running water with eyelids held open. If irritation develops, seek medical attention.

**If swallowed:**
Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention.

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

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

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

Note to physician
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

**Extinguishing media**

Suitable extinguishing media: dry powder, foam

Unsuitable extinguishing media for safety reasons: carbon dioxide

Additional information:
Avoid whirling up the material/product because of the danger of dust explosion.

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

Hazards during fire-fighting: harmful vapours
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

**Advice for fire-fighters**
Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

**Further information:**
Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Avoid dust formation. Use personal protective clothing.

**Environmental precautions**
Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

**Methods and material for containment and cleaning up**
For small amounts: Pick up with suitable appliance and dispose of.
For large amounts: Contain with dust binding material and dispose of.
Avoid raising dust.

### 7. Handling and Storage

**Precautions for safe handling**
Closed containers should only be opened in well-ventilated areas.

Protection against fire and explosion:
Dust can form an explosive mixture with air.

**Conditions for safe storage, including any incompatibilities**
Further information on storage conditions: Store protected against freezing.
Protect from temperatures above: 70 °C

### 8. Exposure Controls/Personal Protection

**Components with occupational exposure limits**

<table>
<thead>
<tr>
<th>Components</th>
<th>OSHA PEL</th>
<th>PEL 0.5 mg/m³ (Chromium (Cr)); TWA value 1 mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amines, C10-14-branched and linear alkyl, [1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenolato(2-)][1-[(2-hydroxy-5-nitrophenyl)azo]-2-naphthalenolato(2-)]chromate(1-)</td>
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<td>OSHA PEL</td>
<td>PEL 0.5 mg/m³ (Chromium (Cr)); TWA value 1 mg/m³</td>
</tr>
</tbody>
</table>
Advice on system design:
Provide local exhaust ventilation to maintain recommended P.E.L. Provide local exhaust ventilation to control dust.

Personal protective equipment

Respiratory protection:
Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Hand protection:
Chemical resistant protective gloves

Eye protection:
Safety glasses with side-shields. Wear face shield if splashing hazard exists.

General safety and hygiene measures:
Handle in accordance with good industrial hygiene and safety practice. Wash soiled clothing immediately.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>powder</td>
</tr>
<tr>
<td>Odour</td>
<td>odourless</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>not applicable, odour not perceivable</td>
</tr>
<tr>
<td>Colour</td>
<td>black</td>
</tr>
<tr>
<td>pH value</td>
<td>4.0 - 8.0 (10 g/l, 20 °C)</td>
</tr>
<tr>
<td>Melting point</td>
<td>The substance / product decomposes therefore not determined.</td>
</tr>
<tr>
<td>Boiling point</td>
<td>not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Study does not need to be conducted.</td>
</tr>
<tr>
<td>Flammability</td>
<td>not highly flammable</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>For solids not relevant for classification and labelling.</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>For solids not relevant for classification and labelling.</td>
</tr>
<tr>
<td>Autoignition</td>
<td>not determined</td>
</tr>
<tr>
<td>SADT</td>
<td>&gt; 75 °C Heat accumulation / Dewar 500 ml (SADT, UN-Test H.4, 28.4.4)</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>not applicable</td>
</tr>
</tbody>
</table>
10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:
not fire-propagating

Minimum ignition energy:
> 10 - < 30 mJ

The product is capable of dust explosion.

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
Dust explosion hazard.

Conditions to avoid
Avoid dust formation. Avoid deposition of dust. Avoid sources of ignition.

Incompatible materials
strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products
Decomposition products:
Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:
11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity: Virtually nontoxic after a single skin contact.

Oral
Type of value: LD50
Species: rat (no data)
Value: > 10,000 mg/kg (BASF-Test)

Dermal
Type of value: LD50
Species: rat (male/female)
Value: > 2,000 mg/kg (OECD Guideline 402)

Assessment other acute effects
Assessment of STOT single:
Based on available Data, the classification criteria are not met.

Irritation / corrosion
Assessment of irritating effects: Not irritating to the skin. Not irritating to the eyes.

Skin
Species: rabbit
Result: non-irritant
Method: BASF-Test
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Eye
Species: rabbit
Result: non-irritant
Method: BASF-Test
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Sensitization
Assessment of sensitization: Caused skin sensitization in animal studies.

Mouse Local Lymph Node Assay (LLNA)
Species: mouse
Result: sensitizing
Method: OECD Guideline 429

Aspiration Hazard
not applicable

**Chronic Toxicity/Effects**

**Repeated dose toxicity**
Assessment of repeated dose toxicity: Causes mortality through prolonged or repeated exposure.

**Genetic toxicity**
Assessment of mutagenicity: The substance was mutagenic in a bacterial test system. The substance was not mutagenic in mammalian cell culture.

**Carcinogenicity**
Assessment of carcinogenicity: No data available.

**Reproductive toxicity**
Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect.

**Teratogenicity**
Assessment of teratogenicity: The substance caused malformations/developmental toxicity in laboratory animals. The results were determined in a Screening test (OECD 421/422).

**Symptoms of Exposure**

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

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**12. Ecological Information**

**Toxicity**

**Aquatic toxicity**
Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms. The chronic aquatic risk classification is based on acute aquatic toxicity study data and the environmental fate properties of the product. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

**Toxicity to fish**
LL50 (96 h) > 100 mg/l, Brachydanio rerio (OECD 203; ISO 7346; 92/69/EEC, C.1, semistatic)

**Aquatic invertebrates**
EL50 (48 h) > 100 mg/l, Daphnia magna (OECD Guideline 202, part 1, semistatic)

**Aquatic plants**
EL50 (7 d) > 100 mg/l (growth rate), Lemna gibba (OECD guideline 221, semistatic)
The details of the toxic effect relate to the nominal concentration.

**Chronic toxicity to fish**
No data available.

**Chronic toxicity to aquatic invertebrates**
No data available.

**Assessment of terrestrial toxicity**
No data available.
Soil living organisms

Toxicity to soil dwelling organisms:
No data available.

Toxicity to terrestrial plants

No data available.

Other terrestrial non-mammals
No data available.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
OECD Guideline 209 aerobic activated sludge, domestic, non-adapted/EC10 (3 h): 100 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H2O)
Not readily biodegradable (by OECD criteria). Poorly biodegradable.

The product is not very soluble in water and can thus be removed from water mechanically in suitable effluent treatment plants. Elimination by adsorption onto activated sludge

Elimination information

0 - 10 % CO2 formation relative to the theoretical value (28 d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic, activated sludge, domestic)

Assessment of stability in water
According to structural properties, hydrolysis is not expected/probable.

Bioaccumulative potential

Assessment bioaccumulation potential
No data available.

Bioaccumulation potential
No data available.

Mobility in soil

Assessment transport between environmental compartments
The substance will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is expected.

Additional information

The product contains: Chromium (III) ion
The heavy metals mentioned are present in complex bound form as substantial constituent of the colourant.
13. Disposal considerations

Waste disposal of substance:
Do not discharge into drains/surface waters/groundwater. Dispose of in accordance with national, state and local regulations.

Container disposal:
Dispose of in accordance with national, state and local regulations. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport
USDOT
Hazard class: 4.2
Packing group: III
ID number: UN 3313
Hazard label: 4.2
Proper shipping name: ORGANIC PIGMENTS, SELF-HEATING

Sea transport
IMDG
Hazard class: 4.2
Packing group: III
ID number: UN 3313
Hazard label: 4.2
Marine pollutant: NO
Proper shipping name: ORGANIC PIGMENTS, SELF-HEATING

Air transport
IATA/ICAO
Hazard class: 4.2
Packing group: III
ID number: UN 3313
Hazard label: 4.2
Proper shipping name: ORGANIC PIGMENTS, SELF-HEATING

Further information
Not dangerous goods of class 4.2 in packages up to 3000 litres capacity.

15. Regulatory Information

Federal Regulations
Registration status:
Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.
16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2018/06/19
We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.