

# SAFETY DATA SHEET

BLACKFAST 181 BLACKING AGENT

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Creation Date: 2016-06-01

Revision Date: 2022-01-24

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

### 1.1. Product identifier

**Product name:** BLACKFAST 181 BLACKING AGENT

**Product codes:** 181-5L, 181-5LU, 181-4PK, 181-4PKU, 181-25L, 181-25LU

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

**Use of substance / mixture:** In use this product should be diluted to 25% with water. PC14: Metal surface treatment products, including galvanic and electroplating products.

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

**Manufacturer:** Blackfast Chemicals Ltd.

Unit 5 Russell House

Molesey Road

Walton-on-Thames

Surrey

KT12 3PE

UK

**Tel:** +44 (0)208 339 7370

**Fax:** +44 (0)208 339 7371

**Email:** sales@blackfast.com

**CAN/USA Reseller:** e-Black Solutions

13 Whitehall Lane

Cambridge

Ontario

N1R 8N3

CANADA

**Tel:** 1-866-878-8886

**Fax:** 1-866-290-3642

**Email:** certification@e-blackolutions.com

### 1.4. Emergency telephone number

**Emergency Tel:** +44(0)1865 407333

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CLP:** Skin Corr. 1B: H314; Skin Sens. 1: H317; Resp. Sens. 1: H334; Muta. 2: H341; Repr. 1B: H360D; STOT RE 1: H372; Met. Corr. 1: H290; Aquatic Chronic 2: H411; Eye Dam. 1: H318;

**Most important adverse effects:** Causes severe skin burns and eye damage. May be corrosive to metals. May cause an allergic skin reaction. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Route of exposure: inhalation of dust, mist and aerosol

Toxic to aquatic life

[cont...]

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## 2.2. Label elements

### Label elements:

**Hazard statements:** H314: Causes skin burns and eye damage.  
H290: May be corrosive to metals.  
H317: May cause an allergic skin reaction.  
H318: Causes serious eye damage.  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Hazard pictograms:** GHS07: Exclamation Mark  
GHS09: Environmental  
GHS08: Health hazard



**Signal words:** WARNING

**Precautionary statements:** P260: Do not breathe dust/mist/spray.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301+312: IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell.  
P301+330+331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P302+352: IF ON SKIN: Wash with plenty of water.  
P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P304+341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+313: IF exposed or concerned: Get medical advice.  
P310: Immediately call a POISON CENTER/doctor.  
P314: Get medical advice if you feel unwell.

[cont...]

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## 2.3. Other hazards

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

NICKEL SULPHATE - REACH registered number(s): 01-2119439361-44-XXXX

232-104-9	7786-81-4	-	Muta. 2: H341; Repr. 1B: H360D; STOT RE 1: H372; Acute Tox. 4: H332; Acute Tox. 4: H302; Skin Irrit. 2: H315; Resp. Sens. 1: H334; Skin Sens. 1: H317; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Carc. 1A: H350; Carc. 1Ai: H350i	<3%
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COPPER SULPHATE - REACH registered number(s): 01-2119520556-40-XXXX

231-847-6	7758-98-7	-	Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Aquatic Chronic 1: H410; Aquatic Acute 1: H400	<3%
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ORTHOPHOSPHORIC ACID - REACH registered number(s): 01-2119485924-24-XXXX

231-633-2	7664-38-2	-	Skin Corr. 1B: H314	<2%
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SELENIUM DIOXIDE

231-194-7	7446-08-4	-	Acute Tox. 3: H301+331; Aquatic Acute 1: H400; Aquatic Chronic 4: H413; STOT RE 2: H373	<3%
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## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin.

**Eye contact:** Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

**Ingestion:** Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

**Inhalation:** Remove from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. Consult a doctor.

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

**Skin contact:** There may be irritation and redness at the site of contact. An itchy rash may occur at the site of contact.

[cont...]

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**Eye contact:** There may be pain and redness. May cause permanent damage.

**Ingestion:** There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting and diarrhoea. It is unlikely that this substance will be swallowed due to its physical properties.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.

**Delayed / immediate effects:** Toxicological data is based on animal data.

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

**Immediate / special treatment:** Eye bathing equipment should be available on the premises.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

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

**Exposure hazards:** Irritant. In combustion emits toxic fumes.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

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

**Personal precautions:** Do not create dust. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

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

**Clean-up procedures:** Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid direct contact with the substance. Avoid the formation or spread of mists in the air. Avoid the formation or spread of dust in the air.

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

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed.

**Suitable packaging:** Polyethylene. Do not use steel containers. Do not use aluminium or steel containers.

## 7.3. Specific end use(s)

**Specific end use(s):** PC14: Metal surface treatment products, including galvanic and electroplating products.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Hazardous ingredients:**

#### COPPER SULPHATE

**Workplace exposure limits:**

**Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
USA	-	2mg/m3	0.2mg/m3	-

#### ORTHOPHOSPHORIC ACID

USA	1	2	-	-
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#### SELENIUM DIOXIDE

USA	0.1mg/m3	-	-	-
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### DNEL/PNEC Values

**Hazardous ingredients:**

#### NICKEL SULPHATE

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	0.05mg/m3	Workers	Systemic
DNEL	Inhalation	0.05mg/m3	Workers	Local
DNEL	Dermal	0.00044mg/cm2	Workers	Local
DNEL	Inhalation	20ng/m3	General Population	Systemic
DNEL	Inhalation	20ng/m3	General Population	Local
DNEL	Oral	0.022mg/kg	General Population	Systemic

#### ORTHOPHOSPHORIC ACID

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	1mg/m3	-	Local

### 8.2. Exposure controls

**Engineering measures:** The floor of the storage room must be impermeable to prevent the escape of liquids.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency.

**Hand protection:** Gloves (acid resistant). Breakthrough time of the glove material > 8 hours.

**Eye protection:** Tightly fitting safety goggles. Ensure eye bath is to hand.

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**Skin protection:** Acid-resistant protective clothing.

**Environmental:** Prevent from entering in public sewers or the immediate environment.

## Section 9: Physical and chemical properties

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

**State:** Liquid

**Colour:** Blue

**Odour:** Perceptible odour

**Evaporation rate:** Negligible

**Oxidising:** Non-oxidising (by EC criteria)

**Solubility in water:** Soluble

**Viscosity:** Non-viscous

**Boiling point/range°C:** 100 (212F)

**Melting point/range°C:** No data available.

**Flammability limits %: lower:** No data available.

**upper:** No data available.

**Flash point°C:** >93 (200F)

**Part.coeff. n-octanol/water:** No data available.

**Autoflammability°C:** No data available.

**Vapour pressure:** No data available.

**Relative density:** 1.16

**pH:** 3

**VOC g/l:** Not applicable.

### 9.2. Other information

**Other information:** No data available.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

### 10.4. Conditions to avoid

**Conditions to avoid:** Heat.

### 10.5. Incompatible materials

**Materials to avoid:** Strong oxidising agents. Strong acids.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes.

## Section 11: Toxicological information

[cont...]

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## 11.1. Information on toxicological effects

### Hazardous ingredients:

#### NICKEL SULPHATE

ORAL	RAT	LD50	264	mg/kg
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#### COPPER SULPHATE

ORAL	HMN	LDLO	11	mg/kg
ORAL	RAT	LD50	482	mg/kg

#### ORTHOPHOSPHORIC ACID

DERMAL	RBT	LD50	2470	mg/kg
ORL	RAT	LD50	1530	mg/kg

#### SELENIUM DIOXIDE

ORAL	RAT	LD50	68.1	mg/kg
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### Relevant hazards for substance:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
Respiratory/skin sensitisation	INH DRM	Hazardous: calculated
Germ cell mutagenicity	--	Hazardous: calculated
Carcinogenicity	--	Hazardous: calculated
Reproductive toxicity	--	Hazardous: calculated
STOT-repeated exposure	-	Hazardous: calculated

## Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact. An itchy rash may occur at the site of contact.

**Eye contact:** There may be pain and redness. May cause permanent damage.

**Ingestion:** There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting and diarrhoea. It is unlikely that this substance will be swallowed due to its physical properties.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.

**Delayed / immediate effects:** Toxicological data is based on animal data.

## Section 12: Ecological information

### 12.1. Toxicity

[cont...]

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### Hazardous ingredients:

#### NICKEL SULPHATE

ALGAE	72H ErC50	6.03	mg/l
ALGAE	96H LC50	18.4	mg/l
DAPHNIA	48H EC50	2.72	mg/l
FISH	96H LC50	14.7	mg/l

#### COPPER SULPHATE

ALGAE	48H EC50	0.1	mg/l
Daphnia magna	48H EC50	2.44	mg/l
Daphnia magna	96H LC50	0.1	mg/l
FISH	96H LC50	810	µg/l

#### SELENIUM DIOXIDE

ALGAE	72H ErC50	0.9	mg/l
DAPHNIA	48H EC50	4.8	mg/l
FISH	96H LC50	7.46	mg/l

### 12.2. Persistence and degradability

**Persistence and degradability:** Biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No bioaccumulation potential.

### 12.4. Mobility in soil

**Mobility:** Readily absorbed into soil.

### 12.5. Results of PBT and vPvB assessment

**Persistence (P-):**

**Persistence result:** not P-

**Bioaccumulation (B-):**

**Bioaccumulation result:** not B-

**Toxicity (T-):**

mg/l

**NOEC for marine or freshwater organisms:** <0.1

**Carc. cat. 1/2, Muta. cat 1/2, Tera. cat. 1/2/3, R48 (see s.2):** Yes

**Toxicity result:** T

**PBT identification:** This product is not identified as a PBT/vPvB substance.

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### 12.6. Other adverse effects

**Other adverse effects:** Toxic to aquatic organisms.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**Waste code number:** 11 01 98

**Disposal of packaging:** Dispose of in a regulated landfill site or other method for hazardous or toxic wastes.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

**Transport class:** This product does not require a classification for transport

## Section 15: Regulatory information

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

**Specific regulations:** Not applicable

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### Section 16: Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EC) No 1272/2008.

**Phrases used in s.2 and s.3:** H290: May be corrosive to metals.  
H301+331: Toxic if swallowed or if inhaled.  
H302: Harmful if swallowed.  
H314: Causes severe skin burns and eye damage.  
H315: Causes skin irritation.  
H317: May cause an allergic skin reaction.  
H318: Causes serious eye damage.  
H319: Causes serious eye irritation.  
H332: Harmful if inhaled.  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H411: Toxic to aquatic life with long lasting effects.  
H413: May cause long lasting harmful effects to aquatic life.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.