



**SAFETY DATA SHEET**  
BLACKFAST 181 CHEMICAL BLACKING SOLUTION

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Compilation date: 01/08/2011  
Revision No: 8

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

**1.1. Product identifier**

**Product name:** BLACKFAST 181 CHEMICAL BLACKING SOLUTION

**Product code:** 181

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

**Use of substance / mixture:** Chemical preparation for blacking of iron and steel

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

**Company name:** Blackfast Chemicals Limited

78 Coombe Road

New Malden

Surrey

KT3 4QS

United Kingdom

**Tel:** +44 (0) 20 8336 2900

**Fax:** +44 (0) 20 8336 0909

**Email:** sales@blackfast.com

**1.4. Emergency telephone number**

**Emergency tel:** +44 (0) 7985 975545

**Section 2: Hazards identification**

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

**Classification under CHIP:** Xn: R20/22; Xn: R33; C: R34; Sens.: R43; T: R48/23; N: R51/53

**Most important adverse effects:** Harmful by inhalation and if swallowed. Danger of cumulative effects. Causes burns. May cause sensitisation by skin contact. Toxic: danger of serious damage to health by prolonged exposure through inhalation. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**2.2. Label elements**

**Label elements under CHIP:**

**Hazard symbols:** Dangerous for the environment.

Toxic.



**Risk phrases:** R20/22: Harmful by inhalation and if swallowed.

R33: Danger of cumulative effects.

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R34: Causes burns.

R43: May cause sensitisation by skin contact.

R48/23: Toxic: danger of serious damage to health by prolonged exposure through inhalation.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:** S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39: Wear suitable protective clothing, gloves and eye / face protection.

S38: In case of insufficient ventilation, wear suitable respiratory equipment.

S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S61: Avoid release to the environment. Refer to special instructions / safety data sheets.

S63: In case of accident by inhalation, remove casualty to fresh air and keep at rest.

## 2.3. Other hazards

**PBT:** This substance is not identified as a PBT substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### NICKEL SULPHATE

232-104-9	7786-81-4	T: R49; Xn: R68; T: R61; T: R48/23; Xn: R20/22; Xi: R38; Sens.: R42/43; N: R50/53	-	2-10%
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#### COPPER SULPHATE

231-847-6	7758-98-7	Xn: R22; Xi: R36/38; N: R50/53	-	2-10%
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#### POTASSIUM BIFLUORIDE

232-156-2	7789-29-9	T: R25; C: R34	-	<2%
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#### SELENIUM COMPOUNDS EXCEPT CADMIUM SULPHOSELENIDE

-	-	T: R23/25; Xn: R33; N: R50/53	-	<2%
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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. If conscious, give half a litre of water to drink immediately.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so.

[cont...]

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

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** There may be vomiting and diarrhoea.

**Inhalation:** Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

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

**Immediate / special treatment:** Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. Eye bathing equipment should be available on the premises.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Water spray. Water fog.

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

**Exposure hazards:** Toxic.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear protective clothing to prevent contact with skin and eyes. 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:** Refer to section 8 of SDS for personal protection details.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers.

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

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Wash the spillage site with large amounts of water.

### 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:** Ensure there is sufficient ventilation of the area.

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

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed. Keep away from direct sunlight.

**Suitable packaging:** Must only be kept in original packaging.

[cont...]

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## 7.3. Specific end use(s)

Specific end use(s): Chemical blacking of iron and steel

## 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
UK	1 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>	-	-

**POTASSIUM BIFLUORIDE**

UK	2.5 mg/m <sup>3</sup>	-	-	-
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### 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Respiratory protection not required.

**Hand protection:** PVC gloves.

**Eye protection:** Safety goggles.

**Skin protection:** Plastic apron.

**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

**Solubility in water:** Soluble

**Boiling point/range°C:** 100

**Relative density:** 1.16

**Flash point°C:** >93

**pH:** 3-3.50

### 9.2. Other information

**Other information:** Not applicable.

## Section 10: Stability and reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

**Chemical stability:** Stable at room temperature.

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## 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. Sources of ignition.

## 10.5. Incompatible materials

## 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes of carbon dioxide.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicity values:

Route	Species	Test	Value	Units
DUST/MIST	RAT	4H LC50	0.046	mg/l
DERMAL	RBT	LD50	35478	mg/kg
ORAL	RAT	LD50	1982	mg/kg

#### Relevant effects for mixture:

Effect	Route	Basis
Acute toxicity (harmful)	INH ING	Hazardous: calculated
Corrosivity	OPT INH DRM	Hazardous: calculated
Sensitisation	DRM	Hazardous: calculated
Repeated dose toxicity	--	Hazardous: calculated

### Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** There may be vomiting and diarrhoea.

**Inhalation:** Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

## Section 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicity values:

Species	Test	Value	Units
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FISH	96H LC50	14	mg/l
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## 12.2. Persistence and degradability

**Persistence and degradability:** Not biodegradable.

## 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No data available.

## 12.4. Mobility in soil

**Mobility:** Soluble in water.

## 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.15):** Yes

**Toxicity result:** T

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

## 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:** Arrange for collection by specialised disposal company.

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

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN3264

### 14.2. UN proper shipping name

**Shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
(Contains Potassium Bifluoride <2%)

[cont...]

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## 14.3. Transport hazard class(es)

Transport class: 8

## 14.4. Packing group

Packing group: III

## 14.5. Environmental hazards

Environmentally hazardous: Yes

Marine pollutant: No

## 14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: E

Transport category: 3

## Section 15: Regulatory information

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

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and 3:** R20/22: Harmful by inhalation and if swallowed.  
R22: Harmful if swallowed.  
R23/25: Toxic by inhalation and if swallowed.  
R25: Toxic if swallowed.  
R33: Danger of cumulative effects.  
R34: Causes burns.  
R36/38: Irritating to eyes and skin.  
R38: Irritating to skin.  
R42/43: May cause sensitisation by inhalation and skin contact.  
R43: May cause sensitisation by skin contact.  
R48/23: Toxic: danger of serious damage to health by prolonged exposure through inhalation.  
R49: May cause cancer by inhalation.  
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

[cont...]

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R61: May cause harm to the unborn child.

R68: Possible risk of irreversible effects.

**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.