



SAFETY DATA SHEET
BLACKFAST 181 WORKING SOLUTION (25%)

Page: 1
Compilation date: 10/01/12
Revision date: 05/01/2020
Revision No: 8

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

1.1. Product identifier

Product name: BLACKFAST 181 WORKING SOLUTION (25%)

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

Use of substance / mixture: PC14: Metal surface treatment products, including galvanic and electroplating products.
PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
PROC13: Treatment of articles by dipping and pouring
ERC5: Industrial use resulting in inclusion into or onto a matrix
USES ADVISED AGAINST: PROC7: Industrial spraying
PROC11: Non industrial spraying

1.3. Details of the supplier of the safety data sheet

Company name: 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

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: STOT RE 2: H373; Aquatic Chronic 2: H411; Carc. 1Ai: H350i; Eye Irrit. 2: H319; Repr. 1B: H360D; Skin Irrit. 2: H315; Skin Sens. 1: H317; -: EUH208; Met. Corr. 1: H290

Most important adverse effects: Causes skin irritation. Contains Nickel Sulphate. May produce an allergic reaction. May cause an allergic skin reaction. Causes serious eye irritation. May cause cancer by inhalation. May damage the unborn child. May cause damage to organs (Respiratory tract only) through prolonged or repeated exposure ([inhalation (dust/mist)]). Toxic to aquatic life with long lasting effects. May be corrosive to metals.

SAFETY DATA SHEET

BLACKFAST 181 WORKING SOLUTION (25%)

Page: 2

2.2. Label elements

Label elements:

Hazard statements: H315: Causes skin irritation.
EUH208: Contains Nickel Sulphate. May produce an allergic reaction.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H350i: May cause cancer by inhalation.
H360D: May damage the unborn child.
H373: May cause damage to organs (Respiratory tract only) through prolonged or repeated exposure ([inhalation (dust/mist)]).
H411: Toxic to aquatic life with long lasting effects.
H290: May be corrosive to metals.

Hazard pictograms: GHS07: Exclamation mark
GHS08: Health hazard
GHS09: Environmental



Signal words: Danger

Precautionary statements: P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe dust/mist/spray.
P264: Wash hands thoroughly after handling.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352: IF ON SKIN: Wash with plenty of water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P314: Get medical advice/attention if you feel unwell.
P321: Specific treatment (see instructions on this label)
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P337+P313: If eye irritation persists: Get medical advice/attention.
P362+P364: Take off contaminated clothing and wash it before reuse.
P391: Collect spillage.
P501: Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

[cont...]

SAFETY DATA SHEET

BLACKFAST 181 WORKING SOLUTION (25%)

Page: 3

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; 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; Acute Tox. 4: H302	<5%
-----------	-----------	---	---	-----

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	<5%
-----------	-----------	---	---	-----

SELENIUM DIOXIDE - REACH registered number(s): 01-2120089867-33-XXXX

231-194-7	7446-08-4	-	Acute Tox. 3: H301+H331; STOT RE 2: H373; Aquatic Acute 1: H400; Aquatic Chronic 1: H410	<5%
-----------	-----------	---	--	-----

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. Wash immediately with plenty of soap and water. Consult a doctor.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Wash out mouth with water. Consult a doctor.

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

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: Exposure may cause coughing or wheezing.

Delayed / immediate effects: Delayed effects can be expected after long-term exposure.

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

Immediate / special treatment: Not applicable.

[cont...]

SAFETY DATA SHEET
BLACKFAST 181 WORKING SOLUTION (25%)

Page: 4

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: 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 attempt to take action without suitable protective clothing - see section 8 of SDS.
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: 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.

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.

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

[cont...]

SAFETY DATA SHEET
BLACKFAST 181 WORKING SOLUTION (25%)

Page: 5

Hazardous ingredients:

COPPER SULPHATE

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	-	2mg/m ³	0.2mg/m ³	-

SELENIUM DIOXIDE

UK	0.1mg/m ³	-	-	-
----	----------------------	---	---	---

DNEL/PNEC Values

Hazardous ingredients:

NICKEL SULPHATE

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	0.05mg/m ³	Workers	Systemic
DNEL	Inhalation	0.05mg/m ³	Workers	Local
DNEL	Dermal	0.00044mg/cm ²	Workers	Local
DNEL	Inhalation	20ng/m ³	General Population	Systemic
DNEL	Inhalation	20ng/m ³	General Population	Local
DNEL	Oral	0.022mg/kg	General Population	Systemic

8.2. Exposure controls

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

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

Hand protection: Rubber gloves. Butyl gloves. Nitrile gloves. Breakthrough time of the glove material > 8 hours.

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

Skin protection: Apron. Boots.

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: Barely perceptible odour

Evaporation rate: No data available.

Oxidising: Non-oxidising (by EC criteria)

Solubility in water: Soluble

Viscosity: No data available.

Boiling point/range°C: 100

Melting point/range°C: No data available.

Flammability limits %: lower: No data available.

[cont...]

SAFETY DATA SHEET
BLACKFAST 181 WORKING SOLUTION (25%)

Page: 6

Flash point°C: No data available.	upper: No data available.
Autoflammability°C: No data available.	Part.coeff. n-octanol/water: No data available.
Relative density: 1.04	Vapour pressure: No data available.
VOC g/l: Not applicable.	pH: 3

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

11.1. Information on toxicological effects

Hazardous ingredients:

NICKEL SULPHATE

ORAL	RAT	LD50	264	mg/kg
------	-----	------	-----	-------

COPPER SULPHATE

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

[cont...]

SAFETY DATA SHEET
BLACKFAST 181 WORKING SOLUTION (25%)

Page: 7

SELENIUM DIOXIDE

ORAL	RAT	LD50	68.1	mg/kg
------	-----	------	------	-------

Relevant hazards for product:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
Respiratory/skin sensitisation	DRM	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.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: Exposure may cause coughing or wheezing.

Delayed / immediate effects: Delayed effects can be expected after long-term exposure.

Section 12: Ecological information

12.1. Toxicity

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

[cont...]

SAFETY DATA SHEET
BLACKFAST 181 WORKING SOLUTION (25%)

Page: 8

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

PBT identification: This product is not identified as a PBT/vPvB 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: Not applicable.

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: UN3082

14.2. UN proper shipping name

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(ORTHOPHOSPHORIC ACID <0.5%)

14.3. Transport hazard class(es)

Transport class: 9

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.

[cont...]

SAFETY DATA SHEET

BLACKFAST 181 WORKING SOLUTION (25%)

Page: 9

Tunnel code: -

Transport category: 3

Section 15: Regulatory information

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

Specific regulations: Not applicable.

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 2015/830.

Phrases used in s.2 and s.3: EUH208: Contains <name of sensitising substance>. May produce an allergic reaction.

H290: May be corrosive to metals.

H301+H331: Toxic if swallowed or if inhaled

H302: Harmful if swallowed.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H341: Suspected of causing genetic defects ({{{0||message=<state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>||filter=(_)?EXP_ROUTE_.+}}}).

H350i: May cause cancer by inhalation.

H360D: May damage the unborn child.

H372: Causes damage to organs ({{{0||message=<or state all organs affected, if known>||filter=(_)?ORGAN_.+}}}) through prolonged or repeated exposure ({{{1||message=<state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>||filter=(_)?EXP_ROUTE_.+}}}).

H373: May cause damage to organs ({{{0||message=<or state all organs affected, if known>||filter=(_)?ORGAN_.+}}}) through prolonged or repeated exposure ({{{1||message=<state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>||filter=(_)?EXP_ROUTE_.+}}}).

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

H411: Toxic to aquatic life with long lasting effects.

[cont...]

SAFETY DATA SHEET

BLACKFAST 181 WORKING SOLUTION (25%)

Page: 10

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.