

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

1.1. Product identifier

Product form	Mixture
Product name	BIO ESPRESSO MACHINE CLEANING POWDER
Product code	PN917, PN918

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

1.2.1. Relevant identified uses

Industrial/Professional use spec	For professional use only
Use of the substance/mixture	Cleaning of Coffee Machine Internals

1.2.2. Uses advised against

Restrictions on use : Not for Oral Consumption, Not for Direct Application to Food Stuffs

1.3. Details of the supplier of the safety data sheet

Supplier

Maclin Sourcing Solutions Ltd
Unit 3A, Risby Business Park, New Market Road,
Risby, IP28 6RD.

Tel: +44 (0) 1284 810 887

e-mail: info@hygiene4less.co.uk

1.4. Emergency telephone number

Emergency number	For immediate First Aid Advice in the UK dial 111. For emergencies in the UK dial 999.
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] and GB CLP Regulations

Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 1	H318
Full text of H- and EUH-statements: see section 16	

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP)



GHS05

Signal word (CLP)

Danger

Contains

SODIUM CARBONATE PEROXIDE; Sodium Metasilicate

Hazard statements (CLP)

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

Precautionary statements (CLP)

P102 - Keep out of reach of children.

P280 - Wear eye protection, protective gloves.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P402+P404 - Store in a dry place. Store in a closed container.
P501 - Dispose of contents and container to National Regulations.

2.3. Other hazards

Other hazards which do not result in classification : NOTE:- In Use Solutions of this Product are NOT CLASSIFIED.

This product does not contain any substances classified as PBT

This product does not contain any substances classified as vPvB.

Contains no PBT/vPvB substances 2: 0.1% assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP] and GB CLP Regulations
sodium carbonate	CAS-No.: 497-19-8 EC-No.: 207-838-8 EC Index-No.: 011-005-00-2 REACH-no: 01-2119485498-19	2: 30- < 50	Eye Irrit. 2, H319
SODIUM CARBONATE PEROXIDE	CAS-No.: 15630-89-4 EC-No.: 239-707-6	2: 9.9 - < 15	Ox. Sol. 2, H272 Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
Sodium Metasilicate	CAS-No.: 6834-92-0 EC-No.: 229-912-9 EC Index-No.: 014-010-00-8	2: 2 - < 3	Skin Corr. 1B, H314 STOT SE 3, H335

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

If medical advice is needed, have product container or label at hand. For immediate First Aid advice in the UK, dial 111. When it is safe to do so, remove the victim immediately from the source of exposure. However, consideration should be given as to whether moving the victim will cause further injury.

First-aid measures after inhalation

Remove person to fresh air and keep comfortable for breathing. If unconscious place in recovery position and seek medical advice.

First-aid measures after skin contact

Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion

Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention. If unconscious place in recovery position and seek medical advice.

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

Symptoms/effects

Causes serious eye damage. Note:- Concentrated liquids or damp powder are likely to be more corrosive to skin than the dry powder product.

Symptoms/effects after inhalation

Unlikely route of exposure, but inhalation of dilute solution droplets may result in a sore throat.

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Symptoms/effects after skin contact	Not expected to cause irritation to normal unbroken skin.
Symptoms/effects after eye contact	Causes serious eye burns.
Symptoms/effects after ingestion	Unlikely route of exposure. Ingestion of Powder will cause burns to GI Tract, Mouth and Lips. Ingestion of use solution is likely to give a bitter soapy taste and irritation.

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

Rinse with plenty of water. Check for abrasion to the surface of the eye from powder particles.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing agent suitable for surrounding fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard	The product is not flammable.
Explosion hazard	No direct explosion hazard.
Reactivity in case of fire	Uncontrolled mixing with other chemicals will result in unknown reactions and evolution of heat. Contact with Acids and Reducing Agents will result in an exothermic reaction. Corrosive vapour may be produced.
Hazardous decomposition products in case of fire	On heating, irritating fumes may be produced.

5.3. Advice for firefighters

Firefighting instructions	Get the package away from the fire if this can be done without risk. Use water spray or fog for cooling exposed containers.
Protection during firefighting	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures Ventilate spillage area. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Normal use solutions can be disposed to sewers and septic tanks. Large scale spillages or uncontrolled discharges into water systems must be reported to the relevant Environment Agency.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Collect and place spillage in suitable containers. Seal the containers and apply labelling to identify the material and hazards. For disposal see section 13 of this SOS. Dispose of via an authorised person/ licensed waste disposal contractor or by other suitable waste treatment techniques.
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6.4. Reference to other sections

For further information refer to section 13. See sections 2,8,12,13 &14.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	Carefully comply with the instructions for use. Avoid contact with eyes.
Hygiene measures	Always wash hands after handling the product.

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According to GB and EU REACH and CLP Regulations

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions Store in a dry place. Store in a closed container.
Storage temperature < 35 °C

7.3. Specific end use(s)

CIP Detergent for Coffee machine internals.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

HALO ESPRESSO MACHINE CLEANING POWDER	
United Kingdom - Occupational Exposure Limits	
Remark	No exposure limits known for ingredients.

8.1.2. Recommended monitoring procedures

No additional information available

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:

Gloves. Safety glasses.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses. Normal use solutions are not classified and eye protection is not mandated, but should be considered if there is a risk of splashing. During manufacture and Packaging Eye Protection is required. Refer to EN166.

8.2.2.2. Skin protection

Hand protection:

NOTE:- Use of gloves is a good general hygiene practice. Use protective gloves, rubber, neoprene, pvc, with a break through time of >60 minutes. Gloves should be inspected regularly for damage and replaced when necessary. Refer to EN374 to select appropriate level of protection.

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Note:- This would be very unusual in normal use.

8.2.2.4. Thermal hazards

No additional information available

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According to GB and EU REACH and CLP Regulations

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Powder.
Colour	white.
Odour	odourless.
Odour threshold	No data available
pH	10.5-11 @1%
Relative evaporation rate (butylacetate=1)	Not applicable.
Relative evaporation rate (ether=1)	Not applicable
Relative evaporation rate (water=1)	Not applicable
Relative evaporation rate (ethanol=1)	Not applicable
Melting point	Not applicable
Freezing point	Not applicable
Boiling point	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
Flammability (solid, gas)	Non flammable.
Vapour pressure	Not applicable
Relative vapour density at 20°C	Not applicable
Relative density	1.15 - 1.25
Solubility	Completely soluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Viscosity, kinematic	Not applicable
Viscosity, dynamic	No data available
Explosive properties	Product is not explosive.
Oxidising properties	Not oxidising. The mixture is not classified as an oxidiser but contains a component classified as an Oxidiser.
Explosive limits	Not applicable

9.2. Other information

Minimum ignition energy	Not applicable
VOE content	Contains no VOC's
Volatility	Non volatile

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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According to GB and EU REACH and CLP Regulations

10.4. Conditions to avoid

Store away from moisture in a closed container. Protect from sunlight.

10.5. Incompatible materials

Strong acids. Reducing agents. Do not mix with Bleach or products containing Sodium Hypochlorite, this could result in dangerous heating of the solution.

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 toxicological effects

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified

SODIUM CARBONATE PEROXIDE (15630-89-4)

LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: other:
ATE CLP (oral)	500 mg/kg bodyweight

Sodium Metasilicate (6834-92-0)

LD50 oral rat	1153 mg/kg
LD50 dermal rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 2.06 mg/l air Animal: rat, Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)
ATE CLP (oral)	1153 mg/kg bodyweight

Skin corrosion/irritation Causes skin irritation.
pH: 10.5-11 @1%

Sodium Metasilicate (6834-92-0)

pH	12.6
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Serious eye damage/irritation Causes serious eye damage.
pH: 10.5-11 @1%

Sodium Metasilicate (6834-92-0)

pH	12.6
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Respiratory or skin sensitisation Not classified
Germ cell mutagenicity Not classified
Carcinogenicity This mixture is not classified as a carcinogen.
Reproductive toxicity This mixture has no reproductive/foetal harm classifications and is not expected to be a risk to expectant mothers.
STOT-single exposure Not classified

Sodium Metasilicate (6834-92-0)

STOT-single exposure	May cause respiratory irritation.
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STOT-repeated exposure Not classified

Sodium Metasilicate (6834-92-0)

NOAEL (oral, rat, 90 days)	227 - 237 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
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Aspiration hazard Not classified

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HALO ESPRESSO MACHINE CLEANING POWDER	
Viscosity, kinematic	Not applicable
SODIUM CARBONATE PEROXIDE (15630-89-4)	
Viscosity, kinematic	Not applicable
sodium carbonate (497-19-8)	
Viscosity, kinematic	Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	Normal use solutions of this product are not classified for environmental harm.
Hazardous to the aquatic environment, short-term (acute)	Not classified
Hazardous to the aquatic environment, long-term (chronic)	Not classified

SODIUM CARBONATE PEROXIDE (15630-89-4)	
LC50 - Fish [1]	70.7 mg/l Source: EPA guideline, SIDS
EC50 - Crustacea [1]	4.9 mg/l Test organisms (species): Daphnia pulex
ErC50 algae	> 7.7 mg/l Source: SIDS
Sodium Metasilicate (6834-92-0)	
EC50 - Crustacea [1]	1700 mg/l Test organisms (species): Daphnia magna
EC50 72h -Algae [1]	207 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2. Persistence and degradability

HALO ESPRESSO MACHINE CLEANING POWDER	
Persistence and degradability	The surfactants in this formulation are biodegradable.

12.3. Bioaccumulative potential

HALO ESPRESSO MACHINE CLEANING POWDER	
Bioaccumulative potential	Not expected to Bioaccumulate.
Sodium Metasilicate (6834-92-0)	
Partition coefficient n-octanol/water (Log Pow)	-5.65

12.4. Mobility in soil

HALO ESPRESSO MACHINE CLEANING POWDER	
Additional information	soluble in water

12.5. Results of PBT and vPvB assessment

HALO ESPRESSO MACHINE CLEANING POWDER	
This product does not contain any substances classified as PBT	
This product does not contain any substances classified as vPvB.	

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12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods
Sewage disposal recommendations

Disposal of this product must comply with local and national environmental legislation.
Small volumes of use solution can be disposed of to sewage drains.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated for transport				
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
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

Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

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According to GB and EU REACH and CLP Regulations

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)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

VOE Directive (2004/42)

VOE content Contains no VOC's

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

GB REACH and CLP regulations.

UK HSE EH40 Publication.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
AON	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	Median effective concentration
EN	European Standard

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Abbreviations and acronyms:	
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	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	Regulations concerning the International Carriage of Dangerous Goods by Rail
SOS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOE	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:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Ox. Sol. 2	Oxidising Solids, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
STOTSE 3	Specific target organ toxicity - Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SOS), EU

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Safety Data Sheet

According to GB and EU REACH and CLP Regulations

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.