



mirius™
A Coventry Group Company

SAFETY DATA SHEET

Vital Fresh Biological Laundry Powder

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

1.1. Product identifier

Product name	Vital Fresh Biological Laundry Powder
Product number	800-299-1160
Container size	10 kg
UFI	UFI: S349-1JM8-H309-EEG0

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

Identified uses	Laundry detergent.
Uses advised against	Use only for intended applications. Not for Oral Consumption.

1.3. Details of the supplier of the safety data sheet

Supplier	MIRIUS™ A Coventry Group Company Coventry Chemicals Limited, Woodhams Road, Siskin Drive, Coventry, England, CV3 4FX Coventry Chemicals (Ireland) Limited, 4th Floor 8-34 Percy Place, Dublin, D04 P5K3, Ireland. +44 (0)2476639739 www.mirius.com info@mirius.com
Contact person	For content of safety data sheet: sds@mirius.com

1.4. Emergency telephone number

Emergency telephone	+44 (0) 1865407333 (Strictly for emergencies only: incidents involving damage to human health and/or the environment)
---------------------	---

National emergency telephone number In case of a medical emergency following exposure to a chemical call NHS Direct in England or Wales 0845 46 47 or NHS 24 in Scotland 08454 24 24 24

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (SI 2019 No. 720)

Physical hazards	Not Classified
Health hazards	Skin Irrit. 2 - H315 Eye Dam. 1 - H318
Environmental hazards	Not Classified

2.2. Label elements

Hazard pictograms



Signal word	Danger
-------------	--------

Vital Fresh Biological Laundry Powder

Hazard statements	H315 Causes skin irritation. H318 Causes serious eye damage.
Precautionary statements	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P264 Wash contaminated skin thoroughly after handling. 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. P310 Immediately call a POISON CENTER/ doctor. P332+P313 If skin irritation occurs: Get medical advice/ attention. P501 Dispose of contents/ container in accordance with local regulations.
Contains	SODIUM PERCARBONATE, SODIUM DODECYLBENZENESULFONATE
Detergent labelling	5 - < 15% oxygen-based bleaching agents, < 5% anionic surfactants, < 5% enzymes, < 5% non-ionic surfactants, < 5% optical brighteners, < 5% perfumes, < 5% phosphates, < 5% zeolites
Supplementary precautionary statements	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P362+P364 Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB. This product is not classified as, nor contains substances classed as having endocrine disrupting characteristics at levels >0.1% by weight (according to Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

SODIUM CARBONATE	10-30%
CAS number: 497-19-8	EC number: 207-838-8
	REACH number: 01-2119485498-19-xxxx
Classification	
Eye Irrit. 2 - H319	
SODIUM PERCARBONATE	5-10%
CAS number: 15630-89-4	EC number: 239-707-6
	REACH number: 01-2119457268-30-xxxx
Classification	<u>Acute toxicity - oral</u>
Ox. Sol. 3 - H272	Acute toxicity oral (LD ₅₀ mg/kg) 1,034.0
Acute Tox. 4 - H302	Species Rat
Eye Dam. 1 - H318	ATE oral (mg/kg) 1,034.0
SODIUM METASILICATE PENTAHYDRATE	1-5%
CAS number: 10213-79-3	EC number: 229-912-9
	REACH number: 01-2119449811-37-XXXX
Classification	<u>Acute toxicity - inhalation</u>
Met. Corr. 1 - H290	Acute toxicity inhalation (LC ₅₀ dust/mist mg/l) 2.3
Skin Corr. 1A - H314	Species Rat
STOT SE 3 - H335	

Vital Fresh Biological Laundry Powder

SODIUM DODECYLBENZENESULFONATE		1-5%
CAS number: 68411-30-3	EC number: 270-115-0	REACH number: 01-2119489428-22-XXXX
Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Chronic 3 - H412	<u>Acute toxicity - oral</u> Acute toxicity oral (LD ₅₀) mg/kg Species	1,080.0 Rat

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Provide eyewash station.
Inhalation	Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
Skin contact	Rinse immediately with plenty of water. Remove contaminated clothing. Get medical attention if irritation persists after washing.
Eye contact	Immediately flush with plenty of water for at least 15 minutes. Remove any contact lenses and hold eyelids open widely. Get medical attention. Show this Safety Data Sheet to the medical personnel.

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

Inhalation	May cause respiratory irritation.
Ingestion	May cause discomfort if swallowed. Nausea, vomiting. Diarrhoea.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	May cause irritation to eyes. May cause serious eye damage.

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

Notes for the doctor	No specific recommendations.
-----------------------------	------------------------------

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire. Foam, carbon dioxide or dry powder.
-------------------------------------	---

5.2. Special hazards arising from the substance or mixture

Specific hazards	The product is non-combustible.
Hazardous combustion products	No known hazardous decomposition products.

5.3. Advice for firefighters

Protective actions during firefighting	Control run-off water by containing and keeping it out of sewers and watercourses.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

Vital Fresh Biological Laundry Powder

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8. In case of spills, beware of slippery floors and surfaces.

6.2. Environmental precautions

Environmental precautions Collect and dispose of spillage as indicated in Section 13. Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage with a shovel and broom, or similar and reuse, if possible. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Do not eat, drink or smoke when using the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container. Keep container dry.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

SODIUM CHLORIDE (CAS: 7647-14-5)

DNEL	Workers - Inhalation; Long term systemic effects: 2068.62 mg/m ³
	Workers - Inhalation; Short term systemic effects: 2068.62 mg/m ³
	Workers - Dermal; Long term systemic effects: 295.52 mg/kg/day
	Workers - Dermal; Short term systemic effects: 295.52 mg/kg/day
	General population - Inhalation; Long term systemic effects: 443.28 mg/m ³
	General population - Inhalation; Short term systemic effects: 443.28 mg/m ³
	General population - Dermal; Long term systemic effects: 126.65 mg/kg/day
	General population - Dermal; Short term systemic effects: 126.65 mg/kg/day
	General population - Oral; Long term systemic effects: 126.65 mg/kg/day
	General population - Oral; Short term systemic effects: 126.65 mg/kg/day
PNEC	- Fresh water; 5 mg/l
	- Intermittent release; 19
	- STP; 500 mg/l
	- Soil; 4.86 mg/kg

Vital Fresh Biological Laundry Powder

SODIUM CARBONATE (CAS: 497-19-8)

DNEL Workers - Inhalation; Long term local effects: 10 mg/m³
General population - Inhalation; Long term local effects: 10 mg/m³

SODIUM PERCARBONATE (CAS: 15630-89-4)

DNEL Workers - Inhalation; Long term local effects: 5 mg/m³
Workers - Dermal; Long term local effects: 12.8 mg/cm²
Workers - Dermal; Short term local effects: 12.8 mg/cm²
General population - Dermal; Long term local effects: 6.4 mg/cm²
General population - Dermal; Short term local effects: 6.4 mg/cm²

PNEC - Fresh water; 0.035 mg/l
- marine water; 0.035 mg/l
- STP; 16.24 mg/l

SODIUM DODECYLBENZENESULFONATE (CAS: 68411-30-3)

DNEL Industry - Inhalation; Long term systemic effects: 6 mg/m³
Industry - Inhalation; Long term local effects: 6 mg/m³
Industry - Dermal; Long term systemic effects: 85 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 1.5 mg/m³
Consumer - Inhalation; Long term local effects: 1.5 mg/m³
Consumer - Dermal; Long term systemic effects: 42.5 mg/kg/day
Consumer - Oral; Long term systemic effects: 0.425 mg/kg/day

PNEC - Fresh water; 0.268 mg/l
- marine water; 0.0268 mg/l
- Intermittent release; 0.0167 mg/l
- STP; 3.43 mg/l
- Sediment, Fresh water; 8.1 mg/kg
- Sediment, marine water; 6.8 mg/kg
- Soil; 35 mg/kg

STPP (CAS: 7758-29-4)

DNEL Workers - Inhalation; Long term systemic effects: 0.661 mg/m³
Workers - Inhalation; Short term systemic effects: 0.661 mg/m³
Workers - Dermal; Long term systemic effects: 0.375 mg/kg/day
Workers - Dermal; Short term systemic effects: 0.375 mg/kg/day
General population - Inhalation; Long term systemic effects: 0.661 mg/m³
General population - Inhalation; Short term systemic effects: 0.66 mg/m³
General population - Dermal; Long term systemic effects: 0.375 mg/kg/day
General population - Dermal; Short term systemic effects: 0.375 mg/kg/day
General population - Oral; Long term systemic effects: 0.75 mg/kg/day
General population - Oral; Short term systemic effects: 0.75 mg/kg/day

PNEC - Fresh water; 0.005 mg/l
- marine water; 0.005 mg/l
- Sediment (Freshwater); 0.19 mg/kg
- Soil; 0.14 mg/kg

8.2. Exposure controls

Vital Fresh Biological Laundry Powder

Protective equipment



Appropriate engineering controls

Provide adequate ventilation.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Personal protective equipment that provides appropriate eye and face protection should be worn.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, wear gloves that are proven to be impervious to the chemical and resist degradation. Gloves made from the following material may provide suitable chemical protection: Rubber (natural, latex). Butyl rubber. Thickness: >0.5 mm Nitrile rubber. Thickness: >0.35 mm Polyvinyl chloride (PVC). For users with sensitive skin, it is recommended that suitable protective gloves are worn.

Other skin and body protection

Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures

When using do not eat, drink or smoke. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Use appropriate skin cream to prevent drying of skin.

Respiratory protection

Respiratory protection not required.

Environmental exposure controls

Avoid releasing into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Powder.
Colour	White with blue speckles
Odour	Perfumed.
Odour threshold	Not applicable. Not applicable.
pH	pH (diluted solution): 10.0 - 10.4 (1g/100ml)
Melting point	No information available.
Initial boiling point and range	Not applicable.
Flash point	This product is not flammable.
Evaporation rate	Not applicable.
Evaporation factor	Not applicable.
Flammability (solid, gas)	Not flammable. This product does not sustain combustion.
Upper/lower flammability or explosive limits	Not applicable.

Vital Fresh Biological Laundry Powder

Other flammability	Not applicable.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	Not applicable.
Bulk density	0.750 - 0.850 kg/l
Solubility(ies)	Completely soluble in water.
Partition coefficient	Not technically possible for a mixture.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	Not applicable.
Explosive properties	There are no chemical groups present in the product that are associated with explosive properties.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	The product contains a substance classified as oxidising. Does not meet the criteria for classification as oxidising.
Comments	Information given is applicable to the product as supplied.

9.2. Other information

Other information Not relevant.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not applicable.

10.4. Conditions to avoid

Conditions to avoid Not relevant.

10.5. Incompatible materials

Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Information given is based on data of the components and of similar products.

Vital Fresh Biological Laundry Powder

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met. Calculation method.

ATE oral (mg/kg) 11,234.02

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met. Calculation method.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation May cause skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage. Irritation of eyes is assumed.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Does not contain any substances known to be mutagenic.

Carcinogenicity

Carcinogenicity Does not contain any substances known to be carcinogenic.

Reproductive toxicity

Reproductive toxicity - fertility Does not contain any substances known to be toxic to reproduction.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Not classified.

General information

This product has low toxicity.

Ingestion

May cause irritation. Symptoms following overexposure may include the following: Stomach pain. Nausea, vomiting. Diarrhoea.

Skin contact

Skin irritation should not occur when used as recommended. Prolonged and frequent contact may cause redness and irritation.

Eye contact

May cause irritation to eyes.

Toxicological information on ingredients.

SODIUM PERCARBONATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,034.0

Vital Fresh Biological Laundry Powder

Species Rat
ATE oral (mg/kg) 1,034.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.1

Species Rabbit
ATE dermal (mg/kg) 2,000.1

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 2.3

Species Rat

SODIUM DODECYLBENZENESULFONATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,080.0

Species Rat
ATE oral (mg/kg) 1,080.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,001.0

Species Rat
ATE dermal (mg/kg) 2,001.0

SECTION 12: Ecological information

Ecotoxicity There are no data on the ecotoxicity of this product. Not regarded as dangerous for the environment.

12.1. Toxicity

Toxicity The product is not expected to be toxic to aquatic organisms.

Ecological information on ingredients.

SODIUM PERCARBONATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 70.7 hours: 48 mg/l, Pimephales promelas (Fat-head Minnow)
 REACH dossier information.

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 4.9 mg/l, Freshwater invertebrates
 REACH dossier information.

SODIUM DODECYLBENZENESULFONATE

Acute aquatic toxicity

Vital Fresh Biological Laundry Powder

Acute toxicity - fish	LC ₅₀ , 96 hours: 1.67 mg/l, Lepomis macrochirus (Bluegill) LC ₅₀ , 96 hours: 10 mg/l, Cyprinus carpio (Common carp)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 10 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 100 mg/l, Scenedesmus subspicatus

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product. The surfactant(s) contained in this product complies(comply) with the biodegradability criteria as laid down in The Detergents Regulations (as amended).

12.3. Bioaccumulative potential

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient Not technically possible for a mixture.

12.4. Mobility in soil

Mobility The product is water-soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Do not discharge into drains or watercourses or onto the ground.

Disposal methods Packaging is recyclable. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

Road transport notes Not classified.

Rail transport notes Not classified.

Sea transport notes Not classified.

Air transport notes Not classified.

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

Vital Fresh Biological Laundry Powder

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

SECTION 15: Regulatory information

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

National regulations	Control of Substances Hazardous to Health Regulations 2002 (as amended).
Guidance	Workplace Exposure Limits EH40. CHIP for everyone HSG228. COSHH Essentials. Approved Classification and Labelling Guide (Sixth edition) L131. Safety Data Sheets for Substances and Preparations.

15.2. Chemical safety assessment

No information available.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	DNEL: Derived No Effect Level. PNEC: Predicted No Effect Concentration. PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative.
Revision comments	This is the first issue. Note: Finished product SDS take their revision history from the parent bulk liquid SDS. The revision data will show that of the parent liquid.
Revision date	05/01/2023
Revision	1
SDS number	23273
Hazard statements in full	H272 May intensify fire; oxidiser. H290 May be corrosive to metals. 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. H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.