Zybax FRESH Concentrate - Fresh Linen

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

1.1 - Product identifier

Trade name/designation	Zybax FRESH Concentrate - Fresh Linen
Chemical name	
Product-type	Mixture
Product code	ZF-01-L; ZF-05-L; ZF-25-L

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

Relevant identified uses	- Odour eliminator and multi-purpose cleaner for organic soiling.
Uses advised against	- Use only for intended applications

1.3 - Details of the supplier of the safety data sheet

BioBax Ltd
Technology Park, Standback Way,
Skelmanthorpe, West Yorkshire.
HD8 9GA United Kingdom
Telephone : +44 (0) 1484 868 970

SDS contact: Tel: +44 (0) 1484 868 970 (office hours only) email: safety@biobax.co.uk

1.4 - Emergency telephone number

- National Poisons Information Service

For medical advice or information you should contact your GP or NHS 111 (or NHS 24 in Scotland) on 111 (for 24 hour health advice)

If you are a healthcare professional with an enquiry please visit www.TOXBASE.org United Kingdom

- National Poisons Information Service of England: http://npis.org -
NHS 111: dial 111 United Kingdom

SECTION 2: Hazards identification

2.1 - Classification of the substance or mixture

Not Classified	Not classified

2.2 - Label elements

Signal word	:	None
Pictograms	:	None
Hazard statements	:	None
Precautionary statements	:	None
EUH-phrases	:	None

Regulation (EC) No. 648/2004 (Detergents regulation)

Contains:
- less than 5%: anionic surfactants, nonionic surfactants
- perfumes
- Preservative: BENZISOTHIAZOLINONE, 2-BROMO-2-NITROPROPANE-1,3-DIOL

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2.3 - Other hazards

PBT-substance.	- The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1 - Substances

Not applicable

3.2 - Mixtures

- Aqueous solution of enzymatic complexes, proteins, type A bacterial cultures (known as not pathogenic for people, animals, plants and the environment), solvents, surfactants and perfumes.
- Full text of H- and EUH-statements: see section 16.

Chemical name	No	%	Class(es)	Specific concentration limit
bronopol INCI: 2-BROMO-2-NITROPROPANE-1,3-DIOL	CAS No. : 52-51-7 Index No. : 603-085-00-8 EC No. : 200-143-0	< 0.1	Acute Tox. 3 Inhalation - H331 Acute Tox. 3 Oral - H301 Acute Tox. 4 Dermal - H312 Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411 Eye Dam. 1 - H318 Skin Irrit. 2 - H315 STOT SE 3 - H335	M-factor: 10 ATE oral 193 ATE dermal 1600 ATE Inhalation Dust/Mist 0.588

SECTION 4: First aid measures

4.1 - Description of first aid measures

Following inhalation	- Provide fresh air. - When in doubt or if symptoms are observed, get medical advice.
Following skin contact	- After contact with skin, wash immediately with plenty of water and soap. - In case of skin reactions, consult a physician.
After eye contact	- Rinse immediately carefully and thoroughly with eye-bath or water. - Remove contact lenses, if present and easy to do. Continue rinsing. - In case of eye irritation consult an ophthalmologist.
After ingestion	- When in doubt or if symptoms are observed, get medical advice. - Do NOT induce vomiting. - Rinse mouth immediately and drink plenty of water.

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

Symptoms and effects - Following inhalation	- No information available.
Symptoms and effects - Following skin contact	- No information available.
Symptoms and effects - After eye contact	- No information available.
Symptoms and effects - After ingestion	- No information available.

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

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- No information available.

SECTION 5: Firefighting measures

5.1 - Extinguishing media

Suitable extinguishing media	- ABC-powder - Water mist - Carbon dioxide (CO2) - Extinguishing powder - Full water jet
Unsuitable extinguishing media	- none

5.2 - Special hazards arising from the substance or mixture

Special hazards arising from the substance or mixture	- No data available.
Hazardous decomposition products	- Hazardous combustion products - Carbon dioxide (CO2) - Carbon monoxide

5.3 - Advice for firefighters

- Co-ordinate fire-fighting measures to the fire surroundings.
- Use water spray jet to protect personnel and to cool endangered containers.
- Move undamaged containers from immediate hazard area if it can be done safely.
- Wear a self-contained breathing apparatus and chemical protective clothing.
- Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1 - Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	- Use personal protection equipment. - Provide adequate ventilation.
For emergency responders	- Provide adequate ventilation. - Use personal protection equipment.

6.2 - Environmental precautions

- Large amounts of spillages:
- Avoid discharge into drains or watercourses or onto the ground.

6.3 - Methods and material for containment and cleaning up

Methods and material for containment	- No information available.
Methods and material for cleaning up	- Large amounts of spillages:

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	- Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). - Wash with plenty of water. - Ventilate affected area.
Inappropriate techniques	- No information available.

6.4 - Reference to other sections

- Disposal: See section 13
- Personal protection equipment: see section 8
- Safe handling: See section 7

SECTION 7: Handling and storage

7.1 - Precautions for safe handling

Recommendation	- Avoid contact with skin, eyes and clothes.
Advices on general occupational hygiene	- Thorough skin-cleansing after handling the product. - Wash contaminated clothing prior to re-use. - Wash hands before breaks and after work. - When using do not eat, drink, smoke, sniff.

7.2 - Conditions for safe storage, including any incompatibilities

- Keep/store only in original container.
- Keep container tightly closed in a cool, well-ventilated place.
- exposure to cold. Do not freeze
- Avoid high temperatures or direct sunlight.
- Unsuitable container/equipment material:
- metals

7.3 - Specific end use(s)

- Observe technical data sheet.
- The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1 - Control parameters

- No data available.

DNEL / PNEC

bronopol (52-51-7)			
Type	**Value**	**User**	**Effect**
DNEL acute inhalative	12.3 mg/m³	Workers	Systemic
DNEL acute inhalative	4.2 mg/m³	Workers	Local
DNEL long-term inhalative	4.1 mg/m³	Workers	Systemic
DNEL long-term inhalative	4.2 mg/m³	Workers	Local
DNEL acute dermal, short-term	0.013 mg/kg	Workers	Local
DNEL acute dermal, short-term	7 mg/kg	Workers	Systemic

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DNEL long-term dermal	2.3 mg/kg bw/day	Workers	Systemic
DNEL long-term dermal	0.013 mg/kg bw/day	Workers	Local
PNEC aquatic, freshwater	0.01 mg/l		
PNEC aquatic, marine water	0.001 mg/l		
PNEC sediment, freshwater	0.041 mg/kg		
PNEC sediment, marine water	0.003 mg/kg		
PNEC soil	0.5 mg/kg		
PNEC sewage treatment plant (STP)	0.43 mg/l		

8.2 - Exposure controls

Appropriate engineering controls

- Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

- Spectacles.

- Protective gloves

- For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
- Breakthrough times and swelling properties of the material must be taken into consideration.
- Suitable material: PVC (Polyvinyl chloride)
- NBR (Nitrile rubber)
- Suitable protective clothing:
- Barrier creams are not substitutes for body protection.
- After contact with skin, wash immediately with plenty of water and soap.
- Do not eat, drink or smoke when using this product.
- Take off contaminated clothing and wash it before reuse.
- Wash hands before breaks and after work.

Environmental exposure controls

- No data available.

SECTION 9: Physical and chemical properties

9.1 - Information on basic physical and chemical properties

Physical state	Liquid	Appearance	Liquid
Colour	blue	Odour	Linen

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Odour threshold	No data available
pH	6.5 - 7.0
Melting point	No data available
Freezing point	No data available
Boiling point	> 100 °C
Flash point	> 100 °C This product does not flash as the expected flash point is above the boiling point of the product.
Evaporation rate	< 1 n-butyl acetate =1
flammability	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	1
Density	No data available
Solubility (Water)	miscible
Solubility (Ethanol)	No data available
Solubility (Acetone)	No data available
Solubility (Organic solvents)	No data available
Log KOC	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Kinematic viscosity	No data available
Dynamic viscosity	No data available

9.2 - Other information

VOC content	0.17 %
Minimum ignition energy	No data available
Conductivity	No data available
Refractive index	No data available
Solids content	No data available
Surface tension	No data available
Saturation concentration	No data available

- No data available.

- Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.

SECTION 10: Stability and reactivity

10.1 - Reactivity

- This material is considered to be non-reactive under normal use conditions.

10.2 - Chemical stability

- The product is chemically stable under recommended conditions of storage, use and temperature.

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10.3 - Possibility of hazardous reactions

- No hazardous reaction when handled and stored according to provisions.

10.4 - Conditions to avoid

- prolonged exposure to extreme heat
- Stable under recommended storage and handling conditions.

10.5 - Incompatible materials

- Strong acid
- Strong alkali

10.6 - Hazardous decomposition products

- Does not decompose when used for intended uses.
- Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

11.1 - Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity - Not classified

Toxicity : Mixture

LD50 oral (rat)	No data available
LD50 dermal (rat)	No data available
LD50 dermal (rabbit)	No data available
LC50 inhalation (rat)	No data available
LC50 inhalation dusts and mists (rat)	No data available
LC50 inhalation vapours (rat)	No data available

- Based on available data, the classification criteria are not met.
- Calculation method.

Skin corrosion/irritation - Not classified

- Based on available data, the classification criteria are not met.
- Calculation method.

Serious eye damage/eye irritation - Not classified

- Based on available data, the classification criteria are not met.
- Calculation method.

Respiratory or skin sensitisation - Not classified

- Based on available data, the classification criteria are not met.
- Calculation method.

Germ cell mutagenicity - Not classified

- Based on available data, the classification criteria are not met.

Carcinogenicity - Not classified

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	- Based on available data, the classification criteria are not met.
Reproductive toxicity	- Not classified
	- Based on available data, the classification criteria are not met. - Calculation method.
STOT-single exposure	- Not classified
	- Based on available data, the classification criteria are not met. - Calculation method.
STOT-repeated exposure	- Not classified
	- Based on available data, the classification criteria are not met.
Aspiration hazard	- Not classified

SECTION 12: Ecological information

12.1 - Toxicity

Toxicity : Mixture

EC50 48 hr crustacea	No data available
LC50 96 hr fish	No data available
ErC50 algae	No data available
ErC50 other aquatic plants	No data available
NOEC chronic fish	No data available
NOEC chronic crustacea	No data available
NOEC chronic algae	No data available
NOEC chronic other aquatic plants	No data available

Toxicity : Substances

bronopol (52-51-7)	
EC50 48 hr crustacea	1.4 mg/l
LC50 96 hr fish	11 mg/l
NOEC chronic fish	2.61 mg/l
NOEC chronic crustacea	0.27 mg/l

- The substance/mixture does not fullfill the criteria of the acute aquatic toxicity according to Regulation (EC) No 1272/2008 [CLP], Annex I.

12.2 - Persistence and degradability

Biochemical oxygen demand (BOD)	No data available
Chemical oxygen demand (COD)	No data available
% of biodegradation in 28 days	Readily biodegradable.

- The surfactants contained in this mixture comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

12.3 - Bioaccumulative potential

Bioconcentration factor (BCF)	No data available
Log KOC	No data available

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- No data available.

12.4 - Mobility in soil

- miscible
- Water

12.5 - Results of PBT and vPvB assessment

- The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 - Other adverse effects

- No data available.

SECTION 13: Disposal considerations

13.1 - Waste treatment methods

Waste treatment methods	- Handle contaminated packages in the same way as the substance itself.
Sewage disposal	- No information available.
Special precautions for waste treatment	- Waste for disposal is to be classified and labelled. - Consult the appropriate local waste disposal expert about waste disposal. - Waste packaging should be collected for reuse or recycling.
Community or national or regional provisions	- Dispose of waste according to applicable legislation.
Waste codes / waste designations according to Regulation 2014/955/UE	20 01 30 - detergents other than those mentioned in 20 01 29

SECTION 14: Transport information

14.1 - UN number or ID number

Not applicable

14.2 - UN proper shipping name

14.3 - Transport hazard class(es)

14.4 - Packing group

14.5 - Environmental hazards

14.6 - Special precautions for user

14.7 - Maritime transport in bulk according to IMO instruments

SECTION 15: Regulatory information

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

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Substances REACH candidates	None
Substances Annex XIV	None
Substances Annex XVII	None
VOC content	0.17 %

- Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work

Regulation (EC) No. 648/2004 (Detergents regulation)

Contains:
- less than 5%: anionic surfactants, nonionic surfactants
- perfumes
- Preservative: BENZISOTHIAZOLINONE, 2-BROMO-2-NITROPROPANE-1,3-DIOL

15.2 - Chemical Safety Assessment

Chemical safety assessment carried out for the product	- Relevant exposure scenario information for the components of this mixture has been included in this Safety Data Sheet and therefore no annex is provided.

SECTION 16: Other information

SDS versions

Version	Issue date	Author	Description of the amendments
2.2	28/04/2025	J Waterfield	3, 8, 9, 12.
2.1	06/07/2020	J Waterfield	

Abbreviations and acronyms

- ADR: The Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE: Acute Toxicity Estimate.
- LC50: Lethal Concentration to 50 % of a test animals.
- LOEC: Lowest Observed Effect Concentration.
- LD50: Lethal Dose to 50% of a test animals.
- LOEL: Lowest Observed Adverse Effect Level.
- DNEL: Derived no-effect level.
- EC50: Effective concentration of the substance that causes adverse effects in 50% of test animals.
- IATA: International Air Transport Association.
- IMDG: International Maritime Dangerous Goods.
- EC No: European Community number
- NOEC: No Observed Effect Concentration.
- NOEL: No observable effect level.
- CAS No.: Chemical Abstracts Service number.
- ICAO: International Civil Aviation Organization
- PBT: Persistent, Bioaccumulative and Toxic.
- PNEC: Predicted no-effect concentration.
- RID: International Carriage of Dangerous Goods by Rail.
- STEL: Short-term exposure limit

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- TWA: Time weighted average
- OEL: Occupational exposure limit.
- vPvB: very Persistent and very Bioaccumulative.

Data sources: Material Safety Data Sheet, Misc. manufacturers.

Texts of the regulatory sentences

Acute Tox. 3 Inhalation	Acute toxicity (inhalative) - Category 3
Acute Tox. 3 Oral	Acute toxicity (oral) - Category 3
Acute Tox. 4 Dermal	Acute toxicity (dermal) - Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Aquatic Acute 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Aquatic Chronic 2
Eye Dam. 1	Serious eye damage, Category 1
Eye Irrit. 2	Eye irritation - Category 2
Flam. Liq. 2	Flammable liquid and vapour. - Category 2
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
Not Classified	Not classified
Skin Irrit. 2	Irritation, Category 2
STOT SE 3	STOT-single exposure - Category 3 (H335)

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.

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