

SAFETY DATA SHEET

In accordance with 1907/2006 annex II and 1272/2008
(All references to EU regulations and directives are abbreviated into only
the numeric term)

Amendment date 2023-11-24

Replaces SDS issued 2023-04-13

Revision date 2023-04-13

Version number 1.1



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

1.1. Product identifier

Trade name	WorkBeads™ 40 Butyl SH, GoBio™ Butyl SH
Article number	40 500 001, 40 500 002, 40 500 010, 40 500 050, 40 500 060, 45 500 101, 45 500 103, 45 500 104, 45 500 105, 45 500 107, 45 500 108, 55 500 001, 55 500 021, 55 500 022, 55 500 031, 55 500 042, 55 500 062, 55 500 072, 55 500 082, 55 500 093
UFI:	TRP6-PQRC-MR3P-3UHQ

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

Identified uses	Research and process chromatography
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1.3. Details of the supplier of the safety data sheet

Company	Bio-Works Sweden AB Virdings allé 18 754 50 Uppsala Sweden
Telephone	+46 8 5626 7430
E-mail	info@bio-works.com

1.4. Emergency telephone number

Phone number for emergencies: 999 or 112. The numbers are available 24/7.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Flam. Liq. 3, H226
(See section 16)

2.2. Label elements

Hazard pictogram



Signal word	Warning
Hazard statement	
H226	Flammable liquid and vapour
Precautionary statements	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233	Keep container tightly closed
P403+P235	Store in a well-ventilated place. Keep cool
P501	Dispose of contents and container to authorised waste disposal facility

2.3. Other hazards

Not indicated.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

Constituent	Classification	Concentration
ETHANOL		
CAS No: 64-17-5 EC No: 200-578-6 Index No: 603-002-00-5 REACH: 01-2119457610-43	Flam. Liq. 2; H225	17 - 19 %

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

SECTION 4: First aid measures

4.1. Description of first aid measures

Generally

In case of concern, or if symptoms occur, call a doctor/physician.

Upon breathing in

Fresh air and rest. If symptoms persist seek medical advice.

Upon eye contact

Rinse the eye for several minutes with lukewarm water. If irritation persists call a doctor.

Upon skin contact

Normal washing of the skin is considered sufficient; If nevertheless symptoms do occur, contact a physician.

Upon ingestion

Rinse nose, mouth and throat with water.

Get medical attention if you feel unwell.

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

No further relevant information available.

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

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended extinguishing agents

Extinguish with water mist, powder, carbon dioxide or alcoholresistant foam.

Unsuitable extinguishing agents

May not be extinguished with water dispersed under high pressure.

5.2. Special hazards arising from the substance or mixture

Emits flammable vapours which may form an explosive mixture with air.

Produces fumes containing harmful gases (carbon monoxide and carbon dioxide) when burning.

5.3. Advice for firefighters

Protective measures to be taken with regard to other materials at the scene of the fire .

In case of fire use proper breathing apparatus.

Wear full protective clothing.

Cool closed containers that were exposed to fire with water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep unauthorized and unprotected people at a safe distance.
Evacuate the accident area and call an ambulance, if relevant.
Avoid inhalation and exposure to skin and eyes.
Use recommended safety equipment, see section 8.
Note the risk of ignition.
Switch off equipment which has an exposed flame, glows, or has a heat source of some other kind.
Switch off power at the main switch. Do not use the power switch in the room where the spillage has occurred.
Note, risk for formation of sparks due to static electricity. Do not remove clothing in a room where spillage has occurred.
Ensure good ventilation.

6.2. Environmental precautions

Avoid release to drains, soil or watercourses.

6.3. Methods and material for containment and cleaning up

Absorb the liquid with an inert absorbent, vermiculite, for example. Collect the material for disposal at a waste disposal facility.
Do NOT use tools emitting sparks when cleaning.
Residues after decontamination are disposed of as hazardous waste. Please contact the municipal sanitation department for more information. Show this Safety Data Sheet.
Ensure good ventilation after sanitation.

6.4. Reference to other sections

See section 8 and 13 for personal protection equipment and disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Take the necessary preventive and protective measures for safe handling.
Open fire, hot items, sparks or other ignition sources must not be present in the environment used for handling this product.
The product may be electrostatically charged. Always ground the containers while transferring the contents from one container to another. Do not use tools that may cause sparks.
Store this product separately from food items and keep it out of the reach of children and pets.
Avoid spillage, inhalation and contact with eyes and skin.
Do not eat, drink or smoke in premises where this product is handled.
Wash your hands after using the product.
Remove contaminated clothing.
Wash contaminated clothing before reuse.
Keep away from incompatible products.
Handle in premises which have modern ventilation standards.
Use recommended safety equipment, see section 8.
Implement appropriate engineering controls if necessary, see Section 8.

7.2. Conditions for safe storage, including any incompatibilities

Take the necessary preventive and protective measures for safe storage.
The product should be stored in a manner which prevents hazards to health and the environment. Avoid exposure to humans and animals and do not discharge the product in a sensitive environment.
To be stored away from food and animal fodder and away from devices or surfaces that are in contact with those items.
Store as flammable liquid.
Must not be stored close to ignition sources.
Store in a well-ventilated space.
Store in dry and cool area.
Do not store close to incompatible materials (see section 10.5).
Always use sealed and visibly labeled packages.

7.3. Specific end use(s)

See identified uses in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National limit values

ETHANOL

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 1000 ppm / 1920 mg/m³

DNEL

ETHANOL

	Type of exposure	Route of exposure	Value
Worker	Acute Local	Inhalation	1900 mg/m ³
Consumer	Chronic Systemic	Inhalation	114 mg/m ³
Worker	Chronic Systemic	Dermal	343 mg/kg bw/d
Worker	Chronic Systemic	Inhalation	950 mg/m ³
Consumer	Acute Local	Inhalation	950 mg/m ³
Consumer	Acute Local	Dermal	950 mg/m ³
Consumer	Chronic Systemic	Oral	87 mg/kg
Consumer	Chronic Systemic	Dermal	206 mg/kg bw/d

PNEC

ETHANOL

Environmental protection target	PNEC value
Fresh water	0.96 mg/l
Freshwater sediments	3.6 mg/kg
Marine water	0.79 mg/l
Marine sediments	2.9 mg/kg
Microorganisms in sewage treatment	580 mg/l
Soil (agricultural)	0.63 mg/kg

8.2. Exposure controls

The risks posed by the product or its constituents must be considered in the task specific risk assessment, in accordance with current working environment legislation. The risk assessment should be reviewed regularly and updated if necessary.

8.2.1. Appropriate engineering controls

The ventilation in the workplace must ensure an air quality that meets the requirements of the current working environment legislation. Local exhaust ventilation should be used to remove airborne contaminants at the source.

Eye/face protection

Eye protection according to standard EN166 should be worn if there is any danger of direct exposure or splashing.

Skin protection

Wear suitable protective clothing when necessary.

Protective gloves are normally not needed due to the properties of this product, but may be necessary for other reasons, e.g. mechanical risks, temperature conditions or microbiological risks.

The most suitable protective glove should be chosen in consultation with the glove supplier, taking into account the risk assessment for the specific task and the properties of the chemicals involved. Note that the breakthrough time of the material is affected by the duration of the exposure, temperature conditions, abrasion, etcetera.

Based on the chemical properties of the product, the following glove materials are recommended (EN 374):.

– Butyl rubber.

Respiratory protection

Respiratory protective equipment is not normally required when working with this product, given that adequate ventilation is provided.

The most appropriate respiratory protective equipment should be decided in consultation with the appointed safety representative, taking into account the risk assessment for the specific task.

Based on the physical and chemical properties of the product, the following filter type(s) and/or filter combination(s) are recommended:

– A/P2.

8.2.3. Environmental exposure controls

For limiting environmental exposure, see section 12.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

(a) Physical state	liquid
	Form: gel
(b) Colour	off-white
(c) Odour	disgusting
(d) Melting point/freezing point	Not indicated
(e) Boiling point or initial boiling point and boiling range	88 °C
(f) Flammability	Not indicated
(g) Lower and upper explosion limit	Not indicated
(h) Flash point	39 °C
(i) Auto-ignition temperature	Not indicated
(j) Decomposition temperature	Not indicated
(k) pH	When supplied, pH is: 7
(l) Kinematic viscosity	Not indicated
(m) Solubility	Solubility in water: Insoluble
(n) Partition coefficient n-octanol/water (log value)	Not indicated
(o) Vapour pressure	Not indicated
(p) Density and/or relative density	0.97 kg/L
(q) Relative vapour density	Not indicated
(r) Particle characteristics	Not indicated

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Not indicated

9.2.2. Other safety characteristics

Not indicated

SECTION 10: Stability and reactivity

10.1. Reactivity

Vapour can create explosive mixtures with air.

10.2. Chemical stability

The product is stable at normal storage and handling conditions.

10.3. Possibility of hazardous reactions

May emit volatile, flammable vapours. Avoid handling close to heat or ignition sources.

10.4. Conditions to avoid

Avoid heat, sparks and open flames.

Protect from heat and direct sunlight.

10.5. Incompatible materials

Avoid contact with strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon oxides.

SECTION 11: Toxicological information

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

Information on possible health hazards are based on experience and / or toxicological properties of several components in the product.

Acute toxicity

The product is not classified as acutely toxic.

ETHANOL

LD50 rabbit 24h: > 20000 mg/kg Dermal

LC50 rat 4h: 124.7 mg/L Inhalation

LD50 rat 24h: 6200 mg/kg Orally

Skin corrosion/irritation

The product is not classified for skin corrosion/irritation.

Serious eye damage/irritation

The product is not classified for serious eye damage/eye irritation.

Respiratory or skin sensitisation

The product is not classified as sensitising.

Germ cell mutagenicity

The product is not classified as mutagen.

Carcinogenicity

The product is not classified as carcinogenic.

Reproductive toxicity

The product is not classified as a reproductive toxicant.

STOT-single exposure

The product is not classified for specific organ toxicity after single exposure.

STOT-repeated exposure

The product is not classified for specific organ toxicity after repeated exposure.

Aspiration hazard

The product is not classified as being toxic for aspiration.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No information is available.

11.2.2. Other information

Not indicated.

SECTION 12: Ecological information

12.1. Toxicity

The product is not classified as hazardous to the environment.

Prevent release on land, in water and drains.

ETHANOL

LC50 Rainbow trout (*Oncorhynchus mykiss*) 96h: 13480 mg/L

LC50 fathead minnow (*Pimephales promelas*) 96h: 13480 mg/L

LC50 Freshwater water flea (*Daphnia magna*) 48h: 5400 mg/L

EC50 Freshwater water flea (*Daphnia magna*) 48 h: 9268 mg/L

LC50 Ide (*Leuciscus idus*) 48h: 8140 mg/L

EC50 Freshwater water flea (*Daphnia magna*) 24h: 10800 mg/L

IC50 Algae 72h: > 10.9 mg/L

LC50 Common Bleak (*Alburnus alburnus*) 96h: 11000 mg/L

LC50 Rainbow trout (*Oncorhynchus mykiss*) 24h: 11200 mg/L

IC50 Pseudomonas (*Pseudomonas putida*) 16h: 6500 mg/L

12.2. Persistence and degradability

There is no information regarding persistence or degradability.

12.3. Bioaccumulative potential

There is no information regarding bioaccumulation.

12.4. Mobility in soil

Information about mobility in nature is not available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Endocrine disrupting properties

No information is available.

12.7. Other adverse effects

Not indicated.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste handling of the product

Avoid discharge into sewers.

Discarded products must be disposed of as hazardous waste in accordance with regulations.

Not completely emptied packaging can contain remnants of dangerous substances and should therefore be handled as hazardous waste according to the above. Completely emptied packaging can be recycled.

See directive 2008/98/EC on waste. Observe national or regional provisions on waste management.

SECTION 14: Transport information

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

14.1. UN number or ID number

Not classified as dangerous goods

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

14.8 Other transport information

Special provision 144:

An aqueous solution containing not more than 24% alcohol by volume is not subject to the requirements of ADR.

SECTION 15: Regulatory information

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

Not indicated.

15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

SECTION 16: Other information

16a. Indication of where changes have been made to the previous version of the safety data sheet Revisions of this document

Earlier versions

2023-04-13 Changes in section(s) 1.

16b. Legend to abbreviations and acronyms used in the safety data sheet

Full texts for Hazard Class and Category Code mentioned in section 3

Flam. Liq. 2 Flammable liquids, Hazard Category 2 - Flam. Liq. 2, H225 - Highly flammable liquid and vapour

Flam. Liq. 3 Flammable liquids, Hazard Category 3 - Flam. Liq. 3, H226 - Flammable liquid and vapour

Explanations of the abbreviations in Section 14

ADR European Agreement concerning the International Transport of Dangerous Goods by Road

RID Regulations concerning the International Transport of Dangerous Goods by Rail

IMDG International Maritime Dangerous Goods Code

ICAO International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)

IATA The International Air Transport Association

16c. Key literature references and sources for data

Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 2023-11-24.

Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

Full texts for Regulations mentioned in this Safety Data Sheet

1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

1272/2008 REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

2008/98/EC DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives

16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I, where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI.

16e. List of relevant hazard statements and/or precautionary statements

Full texts for hazard statements mentioned in section 3

H225 Highly flammable liquid and vapour

16f. Advice on any training appropriate for workers to ensure protection of human health and the environment Warning for misuse

Not indicated.

Other relevant information

Not indicated

Editorial information



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