

# Safety Data Sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH) and the ammendment Regulation (EC) No. 2015/830

EU

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

**Product Name:** WorkBeads™ 40 DEAE in NaOH

**Article Number:** 40 150 000

**Product description:** Agarose-based resin for chromatography.

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

For research and process chromatography.

### 1.3 Manufacturer/Supplier of Material Safety Data Sheet

Bio-Works Sweden AB  
Virdings allé 18  
SE-754 50 Uppsala, Sweden

Phone: +46 8 5626 7430  
E-Mail: [info@bio-works.com](mailto:info@bio-works.com)

### 1.4 Emergency telephone number

+46 8 5626 7430 (Bio-Works Sweden AB)

### National advisory body/Poison Centre

Please contact the regional company representation in your country.

## SECTION 2: HAZARDS IDENTIFICATION

**Hazardous components:** Sodium hydroxide  
**Prevention:** Wear protective gloves, eye or face protection.

### 2.1 Classification of the substance or mixture

**Product definition:** Mixture  
**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]:** Not classified based on available information.

**Ingredients of unknown toxicity:** None, based on available information.  
**Ingredients of unknown ecotoxicity:** None, based on available information.

### 2.2 Label elements

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

### Hazard pictogram

N/A. Classification criteria is not met.

**Signal word** N/A. Classification criteria is not met.

**Hazard statements** N/A. Classification criteria is not met.

**Precautionary statements**

**General**

**Prevention**

N/A. Classification criteria is not met.

**Response** N/A. Classification criteria is not met.

**Storage** N/A. Classification criteria is not met.

**Disposal** N/A. Classification criteria is not met.

**Hazardous ingredients** Contains 0.1 M (0.4%) NaOH as preservative. The concentration is too low to meet the classification criteria.

**Supplemental label elements** N/A

**2.3 Other hazards**

None known.

**SECTION 3: COMPOSITION/INFO ON INGREDIENTS**

**3.1 Substances**

Not applicable

**3.2 Mixtures**

Contains cross-linked agarose beads in 0.1 M (0.4%) NaOH as preservative.

Product/Ingredient name	Identifiers	Content (%)	Classification according to Regulation (EC) No 1272/2008 (CLP) <sup>RE</sup>		
			Hazard class and Category codes	Hazard statements	Pictogram, Signal word
Sodium hydroxide	CAS: 1310-73-2 REACH #: 01-2119457892-27-XXXX EC: 215-185-5 INDEX: 011-002-00-6	0.4	Skin Irritation 2  Eye Irritation 2	H315: 0,5 % ≤ C < 2 % H319: 0,5 % ≤ C < 2 %	GHS05 Dgr

<sup>RE</sup>) See List of abbreviations in section 16.

<sup>E</sup>) Does not meet criteria due to low concentration.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

**SECTION 4: FIRST AID MEASURES**

**4.1 Description of first aid measures**

**General notes** None

**Inhalation** Not expected to be a significant hazard under anticipated conditions of normal use. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms call doctor/physician.

**Skin contact** Remove/Take off immediately all contaminated clothing and shoes. Rinse skin with water/shower for at least 15 minutes. Consult doctor in case of complaints.

**Eye contact** Remove contact lenses, if present and easily done. Rinse eyes with plenty of water for at least 15 minutes. Consult doctor if irritation occurs.

**Ingestion** Do not induce vomiting. Consult doctor for advice.

**Self-protection of first aider** No special precaution required.

**Notes to physician** Treat symptomatically.

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

<b>Inhalation</b>	No known significant effects or critical hazards.
<b>Skin contact</b>	No known significant effects or critical hazards.
<b>Eye contact</b>	No known significant effects or critical hazards.
<b>Ingestion</b>	No known significant effects or critical hazards.

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

No information available.

### SECTION 5: FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	The substance is nonflammable. Use agent that is most suitable for surrounding fire.
<b>Unsuitable extinguishing media</b>	No information available.

#### 5.2 Special hazards arising from the substance or mixture

<b>Hazards from the substance or mixture</b>	Not combustible.
<b>Hazardous combustion products</b>	Not combustible.

#### 5.3 Advice for firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Wear self-contained breathing apparatus.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing dust, vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment according to Section 8.
<b>For emergency responders</b>	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

#### 6.2 Environmental precautions

Avoid discharge into soil, waterways, drains and sewers.

#### 6.3 Methods and material for containment and cleaning up

<b>Small spill</b>	Stop leak if without risk. Move containers from spill area. Absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
<b>Large spill</b>	Stop leak if without risk. Move containers from spill area. Cover drains. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or and place in container for disposal

according to local regulations. Dispose of product and contaminated absorbent material according to local, regional, national or international regulations.

#### 6.4 Reference to other sections

See SECTION 1 for emergency contact information  
See SECTION 8 for personal protection information  
See SECTION 13 for waste treatment information

## SECTION 7: HANDLING AND STORAGE

Store and handling at 2 to 25°C. Small amounts can be flushed down a sink with a large quantity of water unless local rules prohibit this. The product is stable. Under normal conditions of storage and use hazardous polymerization will not occur. Avoid strong oxidizing agents.

### 7.1 Precautions for safe handling

#### Protective measures

Always wear recommended protective equipment, see SECTION 8. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust, vapour or mist. Use adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.

#### Advice on general occupational hygiene

Eating, drinking and smoking must be prohibited in areas where this material is handled, stored and processed. Users should wash hands before eating, drinking and smoking. Remove protective equipment and clothing, and contaminated clothing, before entering eating areas. See Section 8 for additional information.

### 7.2 Conditions for safe storage, including any incompatibilities

Store at 4 to 30°C (39 to 86°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct in a well-ventilated area. Do not store with incompatible materials (see Section 10) or food and drinks. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

### 7.3 Specific end use(s)

#### Research sector

Recommended for laboratory use in research.

#### Industrial sector

Recommended for industrial separation applications.

## SECTION 8: LIMIT EXPOSURE

Use gloves and eye protection. Use in ventilated environment.

### 8.1 Control parameters

#### Permissible exposure limits (PEL)

Geographical area	Sodium hydroxide CAS: 1310-73-2
OSHA	TWA: 2 mg/m <sup>3</sup>
US NIOSH	2 mg/m <sup>3</sup> for 15 minutes
Austria	MAK-KZW: 4 mg/m <sup>3</sup> 15 minutes MAK-TMW: 2 mg/m <sup>3</sup> 8 hours
Belgium	VLE: 2 mg/m <sup>3</sup>
Croatia	STEL-KGVI: 2 mg/m <sup>3</sup> for 15 minutes.
Czech Republic	TWA: 1 mg/m <sup>3</sup> 8 hours. Ceiling: 2 mg/m <sup>3</sup>
Denmark	Ceiling: 2 mg/m <sup>3</sup>
Estonia	TWA: 1 mg/m <sup>3</sup> for 8 hours. Ceiling: 2 mg/m <sup>3</sup>
Finland	STEL: 2 mg/m <sup>3</sup> for 15 minutes.

	Ceiling: 2 mg/m <sup>3</sup>
France	TWA/VME: 2 mg/m <sup>3</sup> for 8 hours.
Germany	TWA: 2 mg/m <sup>3</sup> (inhalable fraction)
Greece	STEL: 2 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup>
Hungary	STEL: 2 mg/m <sup>3</sup> for 15 minutes. CK TWA: 2 mg/m <sup>3</sup> for 8 hours. AK
Iceland	STEL: 2 mg/m <sup>3</sup>
Ireland	STEL: 2 mg/m <sup>3</sup> for 15 min
Italy	None
Latvia	TWA: 0.5 mg/m <sup>3</sup>
Lithuania	Ceiling: 2 mg/m <sup>3</sup>
Norway	Ceiling: 2 mg/m <sup>3</sup>
Netherlands	None
Poland	STEL: 1 mg/m <sup>3</sup> for 15 minutes. TWA: 0.5 mg/m <sup>3</sup> for 8 hours
Portugal	Ceiling: 2 mg/m <sup>3</sup>
Russia	None.
Slovak Republic	TWA: 2 mg/m <sup>3</sup>
Slovenia	TWA: 2 mg/m <sup>3</sup> 8 hours inhalable fraction STEL: 2 mg/m <sup>3</sup> 15 minutes inhalable fraction
Spain	STEL/VLA-EC: 2 mg/m <sup>3</sup> for 15 minutes.
Sweden	LLV: 1 mg/m <sup>3</sup> for 8 timmar. inhalable dust CLV: 2 mg/m <sup>3</sup>
Switzerland	STEL: 2 mg/m <sup>3</sup> for 15 minutes. TWA: 2 mg/m <sup>3</sup> for 8 hours.
United kingdom	STEL: 2 mg/m <sup>3</sup>

#### Recommended monitoring procedure

Workplace atmosphere monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following:

European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy)

European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents)

European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents)

Reference to national guidance documents may also be required.

#### DNELs/DMELs PNECs

No information available.  
No information available

#### 8.2 Exposure controls

##### Appropriate engineering controls

None under normal use conditions.

##### Individual protection measures

The personal protective equipments selected must comply with the EC Council Directive 89/686/EEC.

<b>Hygiene measures</b>	Wash hands, forearms and face after handling the product, before eating, smoking and using the lavatory and at the end of the working period. Remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location and regularly tested.
<b>Eye/face protection</b>	Use safety glasses, and/or face shield.
<b>Hand protection</b>	Use chemically resistant protective gloves that comply with the standard EN374; e.g., gloves based on butyl rubber or neoprene, 0.7 mm thickness or more, with breakthrough time of 2 hours or more.
<b>Body protection</b>	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<b>Respiratory protection</b>	No protection needed under normal use conditions.
<b>Environmental exposure controls</b>	Do not let product enter drain.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Agarose beads packed in plastic container.

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	Suspension
<b>Color</b>	Colourless and white to off white.
<b>Odour</b>	None.
<b>Odour threshold</b>	No information available.
<b>pH</b>	No information available.
<b>Melting point/freezing point</b>	No information available.
<b>Initial boiling point and boiling range</b>	No information available.
<b>Flash point</b>	No information available.
<b>Evaporation rate</b>	No information available.
<b>Flammability (solid, gas)</b>	No information available.
<b>Upper/lower flammability or explosive limits</b>	No information available.
<b>Vapour pressure</b>	No information available.
<b>Vapour density</b>	No information available.
<b>Relative density</b>	No information available.
<b>Solubility(ies)</b>	Sodium hydroxide soluble in water, agarose particles insoluble.
<b>Partition coefficient: n-octanol/water</b>	No information available.
<b>Auto-ignition temperature</b>	No information available.
<b>Decomposition temperature</b>	No information available.
<b>Viscosity</b>	No information available.
<b>Explosive properties</b>	No information available.
<b>Oxidising properties</b>	No information available.

### 9.2 Other information

No additional information available.

## SECTION 10: STABILITY AND REACTIVITY

Product is stable. Reactivity data not available.

### 10.1 Reactivity

None known. Weakly alkaline solution.

### 10.2 Chemical stability

Stable

### 10.3 Possibility of hazardous reactions

No hazardous reactions known under normal use or storage.

### 10.4 Conditions to avoid

No information.

#### 10.5 Incompatible materials

No information.

#### 10.6 Hazardous decomposition products

No hazardous decompositions products produced under normal use or storage.

### SECTION 11: TOXICOLOGICAL INFORMATION

Not available. We are not aware of any other hazards for the product.

#### 1.1 Information on toxicological effects

**Acute toxicity** Not toxic based on available data.

**Irritation** Irritating to eye.

**Corrosivity** No information available.

**Sensitisation** No information available.

**Repeated dose toxicity** Not toxic based on available data.

**Carcinogenicity** No information available.

**Mutagenicity** No information available.

**Toxicity for reproduction** No information available.

Ingredient name	Results	Species	Exposure
Sodium hydroxide	LD50 Dermal 1350 mg/kg	Rabbit	

### SECTION 12: ECOLOGICAL INFORMATION

Not available. We are not aware of any other hazards to the environment for the product.

#### 12.1 Toxicity

Ingredient name	Results	Species	Exposure
Sodium hydroxide	LC50 45.4 mg/L	Fresh water fish	96 h

#### 12.2 Persistence and degradability

Sodium hydroxide is soluble in water. Not persistent.

#### 12.3 Bioaccumulative potential

None.

#### 12.4 Mobility in soil

Highly mobile in soil. May spread in water systems.

#### 12.5 Results of PBT and vPvB assessment

**PBT** Not applicable.

**vPvB** Not applicable.

#### 12.6 Other adverse effects

No known significant effects or critical hazards.

### SECTION 13: DISPOSAL CONSIDERATIONS

Disposal of product should be handled in accordance with regional requirements. Dispose via approved waste disposal contractor.

#### 13.1 Waste treatment methods

##### Product

**Hazardous waste** This product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

**Waste treatment methods** The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of local, regional, national or international environmental protection and waste disposal

legislation. Dispose of mentioned materials must be done via approved waste disposal contractor. Waste must not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. The emptied container may contain residues of the product and must be disposed of accordingly.

<b>European waste catalogue (EWC)</b>	According to Decision 2014/955/EU list of waste pursuant to Directive 2008/98/EC.
<b>Waste code</b>	07 07 99
<b>Waste designation</b>	Wastes not otherwise specified
<b>Packaging</b>	
<b>Waste treatment methods</b>	The generation of waste should be avoided or minimised wherever possible. Packaging waste should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

## SECTION 14: TRANSPORTATION INFORMATION

Not classified.

### 14.1 UN number

Not regulated

### 14.2 UN proper shipping name

Not available.

### 14.3 Transport hazard class(es)

Not available.

### 14.4 Packing group

Not available.

### 14.5 Environmental hazards

None.

### 14.6 Special precautions for user

Transport in closed container, upright and secure. The person transporting the product must know what to do in the event of an accident or spillage.

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not available.

## SECTION 15: REGULATORY INFORMATION

### Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

None of the components listed.

### Regulation (EC) No 850/2004 of the European Parliament on persistent organic pollutants and amending Directive 79/117/EEC.

None of the components listed.

### Regulation (EC) No 649/2012 concerning the export and import of dangerous chemicals.

None of the components are listed.

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

#### Regulation (EC) No 19707/2006 (REACH)

##### Annex XIV – List of substances subject to authorisation

None of the components are listed.

##### Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

None of the substances listed.



#### Other regulations

**Directive 2008/105/EC – Environmental quality standards in the field of water policy**  
**Annex I – Environmental quality standards (EQS)**  
Not listed

**German water hazard classes (Wassergefährdungsklassen) (VwVwS)**  
**Annex 2 – Substances hazardous to water**

Sodium hydroxide                      WGK 1

**DIRECTIVE 2012/18/EU (Seveso III)**  
Not listed.

#### 15.2 Chemical safety assessment

### SECTION 16: OTHER INFORMATION

#### H-Statements

H315 Causes skin irritation  
H319 Causes serious eye irritation

#### Abbreviations

CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EQS	Environmental Quality Standard
LC50	Lethal concentration required to kill 50% of the population
LD50	Lethal dose required to kill 50% of the population
NIOSH	National Institute for Occupational Safety and Health
OELs	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible Exposure limit
PNEC	Predicted No Effect Concentration
STEL	Short-Term Exposure Limits
TWA	Time-Weighted Average
vPvB	very Persistent, very Bioaccumulative and/or Toxic

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